



**syngenta**

**Annual Review 2013**

**Our business – key facts**

A snapshot of our global operations and performance



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pages ii–iii

**Our promise to the world**

Six commitments which will help our planet face its toughest challenge



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pages 12–19

**Our global crops in focus**

How we are innovating across technologies and addressing growers' needs



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**About this Annual Review**

Syngenta's Annual Report 2013 includes the Annual Review 2013 with financial and non-financial performance summaries, the Financial Report 2013, and the Corporate Governance Report and Compensation Report 2013.

The online version of the Annual Report [www.syngenta.com/ar2013](http://www.syngenta.com/ar2013) also contains an in-depth discussion of our Corporate Responsibility performance and expanded case studies. The Syngenta Annual Report also serves as our annual Communication

on Progress (COP) for the United Nations Global Compact.

For further information on our Corporate Responsibility, please also refer to Syngenta's corporate website [www.syngenta.com](http://www.syngenta.com).

Please turn page to reveal a snapshot of our operations and performance during 2013



# Group performance



<sup>1</sup> Growth at constant exchange rates (CER)

<sup>2</sup> Including sales of Crop Protection products to Seeds

<sup>3</sup> Fully diluted excluding restructuring and impairment

<sup>4</sup> For a definition of cash flow return on investment, see page 58

<sup>5</sup> 2013 dividend is subject to shareholder approval at the Annual General Meeting on April 29, 2014

<sup>6</sup> Recordable injury and illness rate (IIR) per 200,000 hours according to US OSHA definition.

<sup>7</sup> Syngenta is a participating company in the Fair Labor Association [www.fairlabor.org](http://www.fairlabor.org)



Read more "Financial information" on pages 52–58



Read more about "Corporate Responsibility Performance" on pages 59–64

## Focus on crops

We are using our deep knowledge of agriculture to develop fully integrated offers on a global crop basis, combining our innovation in genetic and chemical solutions.

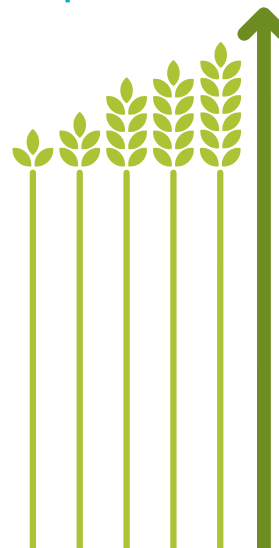


Crop sales<sup>1</sup> \$m

	2013
■ Corn	3,560
■ Cereals	1,772
■ Diverse field crops	1,428
■ Rice	653
■ Soybean	2,577
■ Specialty crops	2,004
■ Sugar cane	290
■ Vegetables	1,701
■ Lawn and Garden	691

**+6%**

Crop sales<sup>2</sup>



<sup>1</sup> Crop sales are based on Syngenta estimates

<sup>2</sup> Growth at constant exchange rates (CER), excluding Lawn and Garden



Read more about "Crops" on pages 20–33

# Business highlights 2013

## The Good Growth Plan

Our six commitments to boost resource efficiency, rejuvenate ecosystems and strengthen rural communities are both ambitious and measurable.



Read more on  
pages 12–19



[www.goodgrowthplan.com](http://www.goodgrowthplan.com)

## New corn trait

The U.S. Department of Agriculture (USDA) fully deregulated AGRISURE® DURACADE™, which provides unmatched control of corn rootworm when combined with our AGRISURE® RW trait.



Read more on  
page 35

## Seed treatment insecticide launched

FORTENZA®: Registered in Argentina for soybean, corn and sunflower.



Read more on  
page 25

## Acquisition: African corn seed business

Syngenta acquires MRI Seed Zambia Ltd and MRI Agro Zambia Ltd, a leading developer, producer and distributor of white corn seed, subject to regulatory approvals.



Read more on  
page 22

## E-licensing: sharing innovation

Syngenta's landmark e-licensing platform provides plant breeders with quick and easy access to patented native traits; available free for academic and non-profit organizations.



Read more on  
page 36



[www.traitability.com](http://www.traitability.com)

## Breakthrough seed treatment

CLARIVA™: Proprietary new seed treatment nematicide launched.



Read more on  
page 22

# Our global reach

Our teams around the world use their local knowledge and understanding – together with the breadth of expertise from across the business – to tailor solutions that create value for growers.

## 90

Countries

## 113

Production  
and Supply sites

## 28,149

Employees<sup>2</sup>

## 139

Research and  
Development sites

### Europe, Africa and Middle East

Sales <sup>1</sup> \$m	4,223
Employees <sup>2,3</sup>	12,763
Research and Development sites	47
Production and Supply sites	38

### North America

Sales <sup>1</sup> \$m	3,848
Employees <sup>2</sup>	4,654
Research and Development sites	42
Production and Supply sites	37

### Latin America

Sales <sup>1</sup> \$m	3,991
Employees <sup>2</sup>	5,221
Research and Development sites	14
Production and Supply sites	14

### Asia Pacific

Sales <sup>1</sup> \$m	1,935
Employees <sup>2</sup>	5,511
Research and Development sites	36
Production and Supply sites	24

<sup>1</sup> Excluding Lawn and Garden

<sup>2</sup> Permanent full-time equivalent (FTE). Reporting period October 1, 2012 to September 30, 2013

<sup>3</sup> Including headquarters (Switzerland)



Read more about our "Regional performance" on **pages 10–11**



## Bringing plant potential to life

Through our world-class science and deep knowledge of farmers' needs, our 28,000 employees are delivering integrated solutions that transform the way crops are grown around the world.

**But it doesn't stop there. Our planet is facing the challenge of feeding 9 billion by 2050, and our resources are ever more stretched. So we've made six commitments to help grow more food using fewer resources, while protecting nature, and at the same time helping people in rural communities live better lives.**

**We call this The Good Growth Plan, and throughout this Review we will show how this plan is integral to our business.**



# Demonstrating our positive contribution to rural communities, the environment and society

## Listening to stakeholders

Michel Demaré at one of five launch events of The Good Growth Plan, in Zurich, Switzerland.



**“Over the past year I have met with many employees, customers and other stakeholders and have experienced first hand what our game-changing strategy means for them and the immense scope it holds for the future.”**

**Michel Demaré**  
Chairman

Last April, I was honored and delighted to take over from Martin Taylor as Chairman of Syngenta, having joined the Board as a non-Executive Director in 2012, a year after the launch of the new integrated strategy. At that time, the pace of change and the accelerating growth potential were already clearly visible, and the company has since continued to evolve at a remarkable rate. The year 2013 did bring some operational challenges, but the business continues to grow in line with our long-term objective of achieving sales of \$25 billion for the eight key crops in 2020.

Over the past year, I have met with many employees, customers and other stakeholders and have experienced first hand what our game-changing strategy means for them and the immense scope it holds for the future. I have been struck by the sophistication of farming and the sheer diversity of our customer base. As I traveled around our territories, I witnessed how our crop-focused approach enables us to create multi-faceted solutions that suit the specific challenges growers face, be they smallholder farmers in Asia Pacific with less than one hectare or large-scale growers in Latin America with more than 50,000 hectares. I was also impressed by the consistency of understanding and implementation of the strategy, and by the many new opportunities that integration creates both in Research and Development and in the field.

The diversity of our customer base is matched by that of our people, which means that we are well placed to capture opportunities across the world. We further built on this strong foundation of diversity last year and can now boast over 40 nationalities in senior management. The company's diversity and its firmly established culture are both key competitive strengths. In 2013, a worldwide employee engagement program helped to deepen understanding of Syngenta's values, ambition and strategy while encouraging feedback and dialogue. The unity of purpose and commitment within the company are reflected in the low employee attrition rate.

One of the biggest challenges that the company, and indeed the entire industry, faces is the disconnect between the way we see ourselves and the way an increasingly urban society views agriculture and our contribution to it. There are some entrenched and passionately held beliefs that our products harm the environment and human health, that modern agricultural practices diminish biodiversity and soil fertility and that intellectual property leads to smallholder dependency and increases poverty. These views, in turn, have a detrimental impact on the industry's reputation and often negatively influence the regulatory systems under which we operate. So addressing the disconnect is a matter of primary importance.

It takes more than just words to shift perception, which is why, in September, we launched The Good Growth Plan to stakeholders across the world through events in Jakarta, Zurich, Brussels, Brasília and Washington, D.C. as well as a virtual introduction through social media. The plan is founded upon six clear commitments and is elucidated in detail throughout this report. It is designed to demonstrate our positive contribution to rural communities, the environment and society in general and is underpinned by specific, measurable targets against which we will transparently report our progress every year. This will not be an easy or short journey, but I am convinced that The Good Growth Plan will enable us to have better, more constructive dialogues with society. Our future depends on healthy ecosystems

and thriving rural communities, so this makes good business, ethical and environmental sense; and the Board is fully supportive of the leadership position being taken by the company.

The Board itself continued to evolve over the past year and the 2013 AGM saw the election of two new Directors, Eleni Gabre-Madhin and Eveline Saupper. I am very pleased to welcome them to the Board, where their diverse perspectives have already enriched our meetings. With their election, the Board of Directors now comprises ten members with eight different nationalities and a variety of skills, capabilities and backgrounds. As a collective body, the Board is well placed to govern the strategic direction of the company in the coming years.

As we move into 2014, Syngenta is in a sound strategic and financial position with a wealth of opportunities. The company remains resolute in its pursuit of profitable growth with a clear commitment to shareholder return. And at the same time, we will move towards delivering on the most comprehensive and ambitious set of environmental and social commitments in our industry.



**Michel Demaré**  
Chairman

## Chief Executive Officer's statement

# Innovation is underpinning our integrated offer and driving performance in the field

A focus on agricultural sustainability has always been fundamental to what Syngenta does, as expressed in our ambition: to bring greater food security in an environmentally sustainable way to an increasingly populous world by creating a step change in productivity. With the launch of The Good Growth Plan in 2013, we aim to make our contribution more visible and more measurable. We are also drawing attention to the challenge of feeding a growing population when, even today, the use of natural resources is beyond what our planet can sustain.

Even following a year in which global production of grains increased sharply, some 870 million people still go to bed hungry. Around 70 percent of those people depend on farming, but they do not have the knowledge or the tools to grow even enough food to feed themselves and their families. By 2050, there will be 2 billion more people on the planet, and the availability of land for cultivation will be increasingly limited – we are already losing a soccer field of farmland every second to soil erosion and the spread of cities.

The Good Growth Plan aims to increase farm productivity while making more efficient use of resources. We want to rescue more farmland and help biodiversity flourish, reflecting our firm belief that nature and agriculture can coexist. And we want to improve health and reduce poverty among smallholder farmers, and reinforce worker safety. Our progress on each of these commitments will be monitored through on farm surveys and audited by third parties, and we will report on our progress annually. The launch of the plan was designed not just to inform our stakeholders, but also to seek their counsel and guidance. We regard this as an ongoing process, and as we move forward we will share our experiences and will jointly shape and refine our objectives.

The engagement of our employees and our customers will be vital if we are to deliver on our commitments. The plan has been widely communicated, and I have been immensely encouraged by the immediate recognition of its importance and the enthusiasm of the response. I am confident that employees, growers and distributors will jointly engage to infuse their communities with an understanding of our goals. We will also enable as many of our employees as possible to work on projects directly linked to the plan.

In 2013, our integrated strategy continued to advance and its relevance to growers is undisputed. Despite this, our financial performance did not meet expectations. Although sales grew by 5 percent at constant exchange rates, earnings per share were 12 percent lower. While this decline is mainly due to non-recurring costs in our seeds business, we are determined to intensify our focus on cost and capital efficiency while maintaining our ambitious growth objectives. The proposed increase in the dividend for the year is an illustration of confidence in our ability to achieve our goals and to generate strong cash flow in the future.

Our target of \$25 billion sales in 2020 is based on the growth prospects and pipelines for our eight key crops. In 2013, we completed a series of updates on these crops with events in Russia and Brazil covering Diverse field crops, Soybean, Specialty crops and Sugar cane. Participants were able to experience our technologies first hand and to discuss our offers and strategy directly with customers. They also gained a deeper understanding of our business model in the emerging markets, which will continue to play a key role in the expansion of our business.



## A global commitment

Michael Mack at one of five launch events of The Good Growth Plan, in Washington, D.C., USA.

rural communities live better lives

34% of the farmers in low and middle-income countries access to adequate resources and markets, basis of a successful agricultural business.

and productive agriculture

Reliance on agriculture

More than 2.5 billion people on agriculture for their livelihoods

25

**“With the launch of The Good Growth Plan in 2013, we aim to make our contribution more visible and more measurable.”**

**Michael Mack**  
Chief Executive Officer

Our future success depends both on the strength of our customer relationships worldwide and on continuous innovation. The integrated strategy broadens the scope of innovation by increasing our openness to partnerships and collaboration, and by expanding the compass of our technologies through the ways they are brought to the grower. The invention and development of strong new products in both seeds and crop protection will continue to underpin our integrated offer and drive performance in the field. We will make further substantial investments in Research and Development with a clear focus on fulfilling unmet needs, enabling our scientists to continue their proven track record and to help realize our common purpose of bringing plant potential to life.

I should like to thank all our employees for their dedication and energy throughout the past year. I know I can count on their commitment as we accelerate delivery of the enormous potential that our strategy has unlocked.

*Michael Mack*

**Michael Mack**  
Chief Executive Officer

# Our strategy

## Integrate

Creating integrated offers in the field, supported by our agronomic expertise and an understanding of the challenges growers face.



Read on:  
page 09

## Innovate

Building on our record of innovation in crop protection and seeds to develop new solutions that combine biology and chemistry, while incorporating adjacent technologies and building new business models.



Read on:  
page 09

## Outperform

Creating value for our shareholders by first creating value for our customers, using outperformance in the field to demonstrate our competitive advantage.



Read on:  
page 09

# The Good Growth Plan

## Six commitments



### Make crops more efficient

by increasing the average productivity of the world's major crops by 20 percent without using more land, water or inputs.



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page 14



### Rescue more farmland

by improving the fertility of 10 million hectares of farmland on the brink of degradation.



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### Help biodiversity flourish

by enhancing biodiversity on 5 million hectares of farmland.



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### Empower smallholders

by reaching 20 million smallholders and enabling them to increase productivity by 50 percent.



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### Help people stay safe

by training 20 million farm workers on labor safety, especially in developing countries.



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page 18



### Look after every worker

by striving for fair labor conditions throughout our entire supply chain network.



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page 19

[www.goodgrowthplan.com](http://www.goodgrowthplan.com)

## Our focus on crops

### Corn

Increased meat consumption is a key driver of demand for corn as livestock farming expands.



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page 21

### Rice

A staple food for almost half the world's population; 90 percent is grown and consumed in Asia.



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page 28

### Diverse field crops

Global demand for healthy oils, including sunflower and oilseed rape, is growing.



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page 22

### Specialty crops

Our business covers over 40 diverse, high-value specialty crops grown around the world.



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page 29

### Soybean

Just three countries grow 80 percent of the world's soybean, the primary source of vegetable protein.



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page 24

### Vegetables

Around 1 billion metric tons of vegetables are produced yearly, with about 75 percent in Asia.



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page 31

### Sugar cane

Sugar cane supplies around three-quarters of the world's sugar consumption.



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page 25

### Lawn and Garden

Applying our world-leading agricultural technology in the turf, landscape and flowers markets.



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page 32

### Cereals

The world's largest crop by acreage, cereals are grown in more than 120 countries.



Read on:  
page 26

## Our business enablers

### Research and Development

With over 5,000 people in Research and Development worldwide, Syngenta is the leader in grower-focused innovation.



Read on:  
page 35

### Responsible agriculture

The safe and responsible use of our products is fundamental to helping farmers to grow more from less.



Read on:  
page 42

### People

The rapidly changing nature of our business requires constant investment in our people – helping us achieve our ambitious goals.



Read on:  
page 37

### Economic value shared

The value we create benefits our shareholders, growers, suppliers, employees and the communities in which we invest.



Read on:  
page 44

### Manufacturing and procurement

The processes that guarantee consistent quality and safety across our products are critical to our success.



Read on:  
page 38

### Business integrity

Doing the right thing is vital in a sustainably successful business; we demand the highest standards from ourselves and all who work with us.



Read on:  
page 45

### Environment

We depend on natural resources for the production of seeds and chemicals, and we constantly try to reduce our environmental impact.



Read on:  
page 40



# Focused on the challenges that farmers face

Through our integrated offers and continuous innovation, we increase crop yield and quality worldwide while making growers' lives easier. We are helping to accelerate technology adoption in the emerging markets, where we have achieved annual double digit growth since the launch of our strategy in 2011. Sales have also continued to grow in developed countries, where we enable growers to deal with problems such as weed and insect resistance as well as an increasingly demanding value chain.





## Integrate

### Create integrated offers in the field supported by agronomic expertise and an understanding of the challenges growers face.

Our integrated strategy continues to gain momentum globally and is delivering results at three levels. Firstly, we are able to accelerate sales by leveraging our combined field force. This has already resulted in tangible gains in a number of territories, most notably for our Seeds business, which historically had a smaller field force than Crop Protection.

The second level of integration relates to integrated offers for yield, quality and convenience. These offers draw on the breadth of our portfolio and on the application of our agronomic expertise to develop product combinations tailored to the needs of different growers.

The third level of integration targets breakthrough innovation in the form of novel solutions fulfilling a previously unmet need. These solutions may exploit the interaction between chemistry and genetics, as in the case of HYVIDO® hybrid barley, or bring in specially designed machinery, as we have done with the TEGRA® planting system for rice.

Underpinning our successes to date – and our confidence for the future – is the fact that integration is embedded throughout the organization. Our Research and Development scientists have changed the way they look at problems with a collaborative approach across disciplines that maximizes their expertise in both chemistry and genetics. Integrated support functions and platforms have already enabled cost savings and provide the necessary foundation to scale up our business worldwide.

## Innovate

### Build on our record of innovation in crop protection and seeds to develop new solutions that combine biology and chemistry, while incorporating adjacent technologies and building new business models.

While furthering collaboration across the Research and Development function, we maintain a clear focus on bringing to market strong new products, which will form the bedrock of our integrated offers. In 2013, we continued our track record as a leading innovator in biotechnology with the launch of a new corn rootworm trait AGRISURE® DURACADE™, Syngenta's fourth trait launch in six years. In seed treatment, FORTENZA® for broad spectrum insect control was registered in Argentina, while VIBRANCE® for disease control achieved multiple new registrations.

Also, in the SDHI chemical class, SOLATENOL®, available in Paraguay and Bolivia and awaiting registration in Brazil, marks a step change in rust control and is set to be a future blockbuster.

Our strategy is to accelerate the pace of innovation through licensing, partnerships and acquisition. In May, we announced the launch of the first product derived from the acquisition of Pasteuria Bioscience Inc. in 2012. CLARIVA™, targeting cyst nematodes, is based on naturally occurring soil bacteria and is a further addition to our broad portfolio of biocontrols.

Two of our key Research and Development Centers were expanded in 2013. In the USA, new administrative and research buildings, designed to further build the collaborative culture, were added at Syngenta Biotechnology Inc. At Stein in Switzerland, we opened a new facility to combat broomrape and announced a \$48 million project to enhance the biological sciences infrastructure and capability.

## Outperform

### Our goal is to create value for our shareholders by first creating value for our customers, using outperformance in the field to demonstrate our competitive advantage.

The goal of our integrated strategy is to drive profitable top line growth. Our aim is to outperform the market, building on a broad geographic presence and a unique ability to provide solutions across eight key crops. Over the coming years, the ability to scale up these solutions while continuing to innovate will be key to our success. In addition, a readiness to enter into partnerships and incorporate adjacent technologies allows us to redefine the parameters of the market and capture a larger share of an expanded opportunity.

A focus on cash generation and cash return to shareholders is an integral part of our financial framework. The value of the investments necessary to grow the business is measured through the target of cash flow return on investment of over 12 percent, a target, which has been met in each of the last three years. Our confidence in the future is demonstrated by the decision to increase the dividend for 2013 to CHF 10.00.

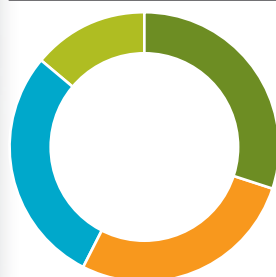
The scale and ambition of The Good Growth Plan further distinguishes us from our competitors. This is the most comprehensive and ambitious plan in the industry to address the critical challenges facing the planet and its people.



## Regional performance

In 2013, we saw robust underlying growth in all regions. Emerging markets performed particularly well with growth of 12 percent and now account for over half our business. While commodity prices were volatile during the year, growers worldwide remained willing to invest in leading technologies to drive crop yield and quality.

Regional sales<sup>1</sup> \$m



Europe, Africa, Middle East	4,223
North America	3,848
Latin America	3,991
Asia Pacific	1,935

<sup>1</sup> Excluding Lawn and Garden

### Europe, Africa and the Middle East

Sales in Europe, Africa, Middle East<sup>1</sup>

\$m

2013	4,223
2012	3,974
2011	3,982

<sup>1</sup> Excluding Lawn and Garden

A strong first quarter was followed by a cold spring, which reduced the number of crop protection applications. France in particular saw strong demand for fungicides in the early part of the year, with growth further boosted by the success of our herbicide portfolio on cereals and corn. Sales in Italy and Iberia improved after the economic constraints and drought of 2012 with market share gains in both territories. Double digit growth in the CIS reflected the ongoing intensification of agriculture and our leading market position, notably in sunflower. South East Europe also grew strongly with broad-based growth across the portfolio and the introduction of new offers.

Employees by region<sup>1</sup>



Europe, Africa, Middle East <sup>2</sup>	12,763
North America	4,654
Latin America	5,221
Asia Pacific	5,511



Read more about "People" on page 37

- <sup>1</sup> Permanent full-time equivalent (FTE). Reporting period October 1, 2012 to September 30, 2013  
<sup>2</sup> Including headquarters (Switzerland)

All sales commentaries are at constant exchange rates.

## North America

### Sales in North America<sup>1</sup>

\$m

2013	3,848
2012	3,931
2011	3,273

<sup>1</sup> Excluding Lawn and Garden

The sales progression was affected by the reduction in trait royalty income: on an underlying basis sales were up 5 percent. A healthy performance in Crop Protection was led by Seedcare, reflecting the successful launch of VIBRANCE® on cereals, canola and soybean. Strong demand for selective herbicides was augmented by increasing concern over glyphosate-resistant weeds. Wet conditions in parts of the USA reduced insect pressure. Seed sales in the first half were constrained by the reduced availability of new traited hybrids following the drought in 2012. In the second half, seeds registered double-digit growth.

## Latin America

### Sales in Latin America<sup>1</sup>

\$m

2013	3,991
2012	3,713
2011	3,305

<sup>1</sup> Excluding Lawn and Garden

Latin America showed good growth driven largely by Brazil, where a resilient soybean price and the depreciation of the Real underpinned grower profitability. Our expanding soybean seed portfolio registered significant gains with the launch of new varieties. The fourth quarter growth rate reflected a delayed fungicide registration and lower corn seed sales in Brazil, due to the acreage reduction, as well as risk management measures in Argentina and Venezuela.

In Latin America South, corn was the main driver for seeds growth for the year, with sales driven by new trait combinations and a combined field force. As the value of seeds sold in the region has increased, so has demand for seed treatment, notably CRUISER® and CELEST®. Sales of TOUCHDOWN® increased sharply, reflecting the expansion of herbicide tolerant crops and a shortage of glyphosate supply from competitors. Crop Protection sales in sugar cane continued their track record of strong growth despite the difficult environment for the ethanol industry.

## Asia Pacific

### Sales in Asia Pacific<sup>1</sup>

\$m

2013	1,935
2012	1,827
2011	1,887

<sup>1</sup> Excluding Lawn and Garden

Growth accelerated in the fourth quarter with particularly strong performances in ASEAN and South Asia. Double-digit expansion for the full year in emerging markets reflected the ongoing adoption of fungicides and modern insecticide chemistry. South Asia saw strong demand in corn, vegetables and cereals, which was augmented by an early monsoon season. In ASEAN countries such as Thailand and Indonesia, rice sales benefited from the continuing success of GROMORE™ protocols; corn seeds also expanded rapidly, accompanied by the uptake of CRUISER®. China saw growth particularly in herbicides, seed treatment and fungicides, with AMISTAR® making a notable contribution following its new launch on rice. The developed markets of the region showed moderate growth.



# One planet. Six commitments.

**Our strategy is complemented by a strong sense of purpose. The long-term success of our business is inextricably linked with the world's efforts to feed its fast-growing population: both depend on sustainable transformation of farming productivity. That is why we have launched The Good Growth Plan.**





# Something needs to change

**Humanity is facing its greatest challenge. Today, 870 million people will go to bed hungry – and the world's population will grow by another 200,000.<sup>1</sup> We need to find better ways to feed the world.**

Already, the challenge is putting unprecedented strain on land, water and energy resources. And it won't get any easier. Nearly 7 million hectares of farmland are lost to soil erosion each year<sup>1</sup>, and 4 billion people will be living in countries with water scarcity by 2050<sup>2</sup>. We have to grow more, while preserving natural resources. And we must ensure that rural communities are healthy, vibrant and have a sustainable future.

Our future – everyone's future – depends on finding solutions to these challenges. The Good Growth Plan is our commitment to make a measurable contribution by 2020. We are setting ourselves six specific targets related to improving resource efficiency, rejuvenating ecosystems and revitalizing rural communities.

## **Good growth underpins our strategy**

Improving the productivity and sustainability of farming has long been at the heart of our business ambition and underpins our strategy, supported by our approach to Research and Development (R&D). Our integrated strategy, launched in 2011, is all about bringing farmers new and better solutions.

But we believe it is time for business to play a greater and more explicit role in addressing these global challenges. We have consulted with stakeholders and have listened to their concerns about our business, agriculture and the environment. As a result, we've developed The Good Growth Plan to take our contribution to a new level.

## **Partnerships are the key to success**

The targets are deliberately ambitious. We will put all our company's passion and skills behind meeting them, but we don't have all the answers. The scale and scope of the challenges demand the broad engagement of all those concerned with the future of agriculture. So we will seek to work in partnership with governments, farmers, NGOs, international organizations and academics.

Partnerships are already part of the way we work – in research, in farmer training, in environmental programs and in developing new integrated solutions. In support of The Good Growth Plan, we have already signed agreements with the Fair Labor Association (FLA) – expanding our existing partnership, the U.S. Agency for International Development (USAID) on access to technology and services for smallholders, and the United Nations Convention to Combat Desertification (UNCCD) on a soil leadership academy. We are talking with other potential partners.

In addition, our aim is that every Syngenta employee will be involved in some aspect of delivering The Good Growth Plan. Our regional and territory business teams, and our stewardship teams, will implement the work on the ground. The Syngenta Executive Committee has been directly involved in developing this program and takes ultimate responsibility for achieving the targets. This is a business commitment for Syngenta – but delivering it will be a personal achievement for every one of us.

<sup>1</sup> Food and Agricultural Organization of the United Nations

<sup>2</sup> United Nations Environment Programme

## The Good Growth Plan

# Make crops more efficient



**Make crops more efficient by increasing the average productivity of the world's major crops by 20 percent without using more land, water or inputs.**

## Why does it matter?

To feed its growing population, the world will have to grow more food in the next 50 years than it has produced in the past 10,000. And to be sustainable, this huge increase in production needs to be achieved while using resources far more efficiently. The challenge will be even greater if climate change continues to disrupt temperature and weather patterns.

## How are we going to do it?

By applying our unique breadth of technologies and integrated strategy, augmented by collaborations with partners. We will focus efforts not only on the world's

8 million large-scale farmers, but also on the 450 million smallholder farmers, whose productivity lags far behind their developed market counterparts.

## How are we going to measure it?

By quantifying "input use per unit of output produced" on reference farms for each crop in every region. In developing countries, where current input use per hectare is often very low, we will tailor the best solutions available to ensure from the outset the same resource efficiency we achieve in more developed growing systems. We have developed specific measurements for land productivity, nutrient efficiency, pesticide efficiency, application efficiency, water efficiency and energy efficiency.

## What are the priorities for the year ahead?

First, we must build a network of reference farms across geographies and crops. Then, we can measure and publish baseline benchmarks for each crop and region, and start working with external partners to collect data and audit the progress we make.

More online:  
[www.goodgrowthplan.com](http://www.goodgrowthplan.com)



**"The way we have been doing things in the past absolutely cannot happen the same way in the future. It is not just about setting different kinds of targets; it is not just about saying we've got to help smallholders and lift them out of poverty. It is about creating a bigger vision of the world."**

**Josh Tosteson**

Vice President, Programs, Planning and Assessment, Rainforest Alliance

Comment made at The Good Growth Plan launch in Washington, D.C., USA



# Rescue more farmland



More online:  
[www.goodgrowthplan.com](http://www.goodgrowthplan.com)



**“All of us – institutions, scientists, government – have to understand that the concept of economic development and progress is not contrary to the concept of sustainability. It’s perfectly possible to integrate and align those two concepts.”**

**Maurício Lopes**

President of EMBRAPA (Empresa Brasileira de Pesquisa Agropecuária)

Comment made at The Good Growth Plan launch in Brasília, Brazil

## Rescue more farmland by improving the fertility of 10 million hectares of farmland on the brink of degradation.

### Why does it matter?

Every second, the world loses a soccer field of farmland to soil erosion, desertification and urban sprawl.<sup>1</sup> Poor farming practices expose soil to wind and rain erosion, leaving millions of hectares infertile each year. Some 40 percent of existing farmland is seriously degraded, and an area large enough to feed Europe is too depleted to produce food. Action is needed urgently: nature takes 500 years to replace 25 mm of lost soil.<sup>2</sup>

### How are we going to do it?

Plowing for weed control is a major cause of soil loss, leaving fertile earth more vulnerable to wind and rain erosion. We will help farmers increase fertility and productivity sustainably by improving soil structure

and adding organic matter through appropriate use of fertilizers, crop rotation and techniques to avoid needless plowing. With partners, we will share soil management knowledge through the UNCCD Soil Leadership Academy.

### How are we going to measure it?

We will measure our contribution to the conservation practices listed above through third party surveys. These will monitor the number of hectares of farmland with minimum tillage, crop rotation and other sustainable soil management practices. Impact evaluations, run jointly with third parties, will check that these practices are improving soil fertility.

### What are the priorities for the year ahead?

We can’t rescue 10 million hectares – the size of Iceland – on our own, and our partners will include the UNCCD. We have agreed to support the building of the UNCCD Soil Leadership Academy, which aims to strengthen international policy, decision making and frameworks for effective implementation of soil conservation and sustainable land management.

<sup>1</sup> United Nations Convention to Combat Desertification  
<sup>2</sup> Pimentel D, Pimentel M; American Journal of Clinical Nutrition; Vol. 78, Issue 3, p. 660S–663S; September 2003

# Help biodiversity flourish



More online:  
[www.goodgrowthplan.com](http://www.goodgrowthplan.com)



**“If in 10 years’ time we will have less bees, less butterflies, less birds, less water, more hungry people, you’re going to get the heat for it. If we will see real positive change, you will be able to claim part of the credit for the change.”**

**Ariel Brunner**

Head of EU Policy, BirdLife Europe

Comment made at The Good Growth Plan launch in Brussels, Belgium

## Help biodiversity flourish by enhancing biodiversity on 5 million hectares of farmland.

### Why does it matter?

The sustainability of agriculture depends on biodiversity – for plant breeding, for pollination and for the diversity of our diet. More than a third of the world’s agricultural crops depend on pollination, but populations of pollinators have been falling in many countries. Changing agricultural practices have altered rural landscapes and natural habitats. Expanding the use of land for crops can reduce forest, meadows and hedgerows that provide food and shelter for flora and fauna needed for a sustainable agricultural landscape.

### How are we going to do it?

We will help farmers to create diverse, rich habitats through methods ranging from reforestation to buffer strips and diversely-planted field margins. Since 2001, our OPERATION POLLINATOR™ has been planting

field margins with local wildflower seeds across Europe and the USA – boosting bee populations up to 300-fold. To preserve crop diversity, we are working with conservation groups to secure the seeds of trees, crop wild relatives, medicinal and other socio-economically valuable plant species.

### How are we going to measure it?

We will collect data through on-farm surveys by third parties. These will monitor the number of hectares of farmland with field margins, buffer strips and other species protection programs. Impact evaluations, run jointly with third parties, will check that these practices are improving biodiversity.

### What are the priorities for the year ahead?

Biodiversity programs need to be tailored to local conditions. So, in all geographies, we will work with partners to identify priority programs, agree on specific targets for these programs and define protocols to measure progress over the years ahead.

# Empower smallholders



## Empower smallholders by reaching 20 million smallholders and enabling them to increase productivity by 50 percent.

### Why does it matter?

Over 2.5 billion people – including more than half the world's extreme poor – depend on agriculture for their livelihoods. They are critical to the world's food security, yet they face high financial risks and low returns. Every day, another 180,000 leave rural communities to live in cities. Enabling farmers to progress beyond subsistence agriculture will help to restore and maintain vibrant, productive rural communities.

### How are we going to do it?

By providing tools and training that make agriculture more productive, efficient and profitable. Partnering with organizations such as USAID, we can bring

farmers the products and know-how to raise productivity by 50 percent while preserving the long-term potential of their land. We will also help them finance higher-yielding products and enable them to reach markets to sell their crops.

### How are we going to measure it?

We will measure the number of smallholders reached by estimating sales of specially-designed solutions for smallholder farmers, and by reviewing projects and initiatives developed specifically to reach smallholder farmers. These include training, market access, financial solutions and mobile phone-based solutions. We will share our information and processes with third party auditors and our partners for verification.

### What are the priorities for the year ahead?

We will continue our Africa venture and business growth strategies in smallholder markets in all geographies. To extend our reach we will seek out new business opportunities and new partnerships. And we will screen our R&D portfolio for potential new smallholder solutions.

More online:  
[www.goodgrowthplan.com](http://www.goodgrowthplan.com)



**"Investing in the world's nearly 500 million smallholder farmers, many of whom are women, is essential to reducing poverty and improving the lives of families and communities around the world. Ensuring that women smallholders have equal access to the productive resources and services they need improves farm productivity and food security."**

**Helene D. Gayle**  
President and CEO, CARE USA





## The Good Growth Plan

# Help people stay safe



More online:  
[www.goodgrowthplan.com](http://www.goodgrowthplan.com)



**"If we want to have a sustainable farming system in the future, we need to raise awareness of better farming practices including landscape management, resource efficiency, and the health and safety of people working on the farm with respect of the local culture and territory."**

**Prof. Ettore Capri**

Director of OPERA Research Centre,  
Università Cattolica del Sacro Cuore, Italy



## Help people stay safe by training 20 million farm workers on labor safety, especially in developing countries.

### Why does it matter?

Agriculture is the world's second largest source of employment, often involving long hours and heavy work in challenging climates and harsh conditions. As an input and service provider to growers, we recognize a responsibility to help improve occupational safety and health in agriculture.

### How are we going to do it?

We aim to raise awareness of the risks associated with agricultural work, and share knowledge of how these can be effectively managed and prevented. Each year we train as many farmers as possible through partnerships with local organizations and product retailers. To reach 20 million farm workers by 2020, we will partner with even more organizations. Training will be done by Syngenta staff or partners. We will ensure that training is high-quality and leads to measurable impacts on attitudes, knowledge and behaviors.

### How are we going to measure it?

Our data on numbers of people trained will be verified by external auditors. We will also collect data on our investment in training, farmers' adoption of occupational safety and health practices, and numbers of reported accidents and health incidents. Recognizing that training alone does not guarantee safety, we are introducing new monitoring systems to track the effectiveness and impacts of training programs, and to identify bottlenecks that prevent behavioral change.

### What are the priorities for the year ahead?

We will establish baseline data against which to measure our progress. Working with external partners, we will refine our farmer training programs and adapt our training concepts to ensure that we can meet this new commitment.

# Look after every worker



## Look after every worker by striving for fair labor conditions throughout our entire supply chain network.

### Why does it matter?

Labor standards are a priority for all our operations, and we expect the same of our suppliers. We recognize a responsibility to ensure that our supply chain meets internationally acceptable standards, especially in developing countries.

Our products are manufactured at Syngenta and supplier sites. Our seeds are multiplied by thousands of contract growers around the world. Our flowers are grown by hundreds of flower farmers across geographies. Our chemical products are synthesized, mixed and shipped from state-of-the-art facilities in key markets, operated by Syngenta, partners and suppliers.

### How are we going to do it?

We have strict contractual requirements – prohibiting the use of child labor, for example. We also encourage suppliers to meet our standards through intensive training and financial incentives. In 2004, we began

working with the Fair Labor Association (FLA) to address labor standards on seed farms in India, including child labor, health and safety, awareness of workers' rights, wages and benefits, hours of work, harassment, abuse and discrimination. We have since expanded this program to Eastern Europe and Latin America: it now includes 22,895 suppliers.

Major chemical suppliers play a critical role in our ability to meet demand, and an important part of our relationship with them is to ensure they meet high standards on health, safety and labor conditions.

### How are we going to measure it?

Our programs will be independently verified by the FLA using an agreed risk-based approach. Our procurement and supply chain professionals will work with suppliers to continuously improve their labor practices, and we will monitor and report on progress.

### What are the priorities for the year ahead?

We will undertake a risk assessment of our supply chain to identify priorities and review our chemical supplier assessment protocol for labor practice measures. In 2014, we also aim to extend our seed supplier program to China, Vietnam and the Philippines and complete the assessment of our flowers suppliers.

More online:  
[www.goodgrowthplan.com](http://www.goodgrowthplan.com)



**“We cannot have an ethically traded product if any of the links in the supply chain are unethical. We simply have to work together so that the fantastic stewardship that Syngenta might demonstrate in their level of the supply chain is sustained and maintained by all the subsequent partners.”**

**Auret van Heerden**

President and CEO, Fair Labor Association

Comment made at The Good Growth Plan launch in Zurich, Switzerland





# Thinking like a grower

To meet our strategic goals and The Good Growth Plan, we look at farming from the ground up. By seeing things from the grower's perspective, crop by crop, we aim to combine technologies into innovative solutions that can transform the performance of farms large and small.



All crop sales in this section are based on Syngenta estimates.

## Corn

### Sales in Corn \$m



Crop Protection	2,356
Seeds	1,204

### 2013 sales

**\$3,560m**

### Target sales \$m

2015	~4,000
2020	~5,500

### Corn pipeline highlights

■ Integrated Solutions ■ Crop Protection ■ Seeds

#### 2013

- ENOGEN® corn offer
- Water optimization trait: AGRISURE ARTESIAN®

#### 2015

- First 45 days solution: START RIGHT
- Next generation corn rootworm control: AGRISURE® DURACADE™

#### 2020

- Water optimization trait: 2<sup>nd</sup> generation AGRISURE ARTESIAN®
- Global molecular stack



For full pipeline visit:  
[www.syngenta.com/ar2013](http://www.syngenta.com/ar2013)

Corn is grown worldwide and is Syngenta's largest single crop. Our strategy is to provide a full range of technologies adapted to the needs of growers in every region.

The market is shaped by abiotic and biotic factors. Abiotic pressures relate mainly to water and heat stress, with water availability becoming more uncertain in many areas. Biotic pressures are being exacerbated by the emergence of weed and insect resistance to existing technologies. Our early recognition of these challenges means that we are well-positioned to help growers confront them, while addressing the opportunity of rising global demand, particularly for animal feed.

### Biotic stresses

Managing biotic pressures with single products is becoming increasingly difficult. Syngenta's broad portfolio of GM traits, insecticides and herbicides provides growers with comprehensive and effective solutions.

In the USA, for example, our best-in-class portfolio combines traits with seed treatment and FORCE® soil insecticide against corn rootworm. Our innovation in traits continued in 2013 with the approval of DURACADE™, which has demonstrated consistent advantages in terms of yield and efficacy at all levels of corn rootworm pressure. DURACADE™ will be stacked with our existing corn rootworm trait AGRISURE® RW and will increasingly form part of our refuge-in-a-bag offers, designed to help growers prevent resistance in a convenient way.

Use of our leading early season weed control products LUMAX® EZ and LEXAR® EZ enables growers to control an increasing array of resistant weeds in a convenient and reliable way.

### Corn processing efficiency

"ENOGEN® has the potential to change the face of the ethanol industry."

#### Joe Williams

Laboratory Manager,  
Quad County Corn  
Processors,  
Galva, Iowa, USA



More online:  
[www.syngenta.com/ar2013](http://www.syngenta.com/ar2013)



## Crops in focus

## Abiotic stresses and solutions

Our AGRISURE ARTESIAN® native trait was developed through advanced breeding techniques. AGRISURE ARTESIAN® helps growers manage the uncertainty surrounding water availability. In drought conditions, it delivers yields surpassing those of competitor hybrids; when water is in adequate supply, it still delivers best-in-class, high yield performance. In 2013, US growers planted AGRISURE ARTESIAN® on more than 400,000 acres in the USA, and a significant increase in adoption is expected in 2014.

The commitment to water efficiency contained in The Good Growth Plan demands that we think differently about how water is used. In the USA, we are helping growers to manage their corn crop holistically in an irrigated environment with the aid of remote monitoring.

## Improving the efficiency of biofuels

Our corn amylase trait ENOGEN® speeds the conversion of starch into sugar, resulting in a cost saving for ethanol producers of 8 to 11 cents per gallon. It offers a substantial reduction in both water and energy needs and a total reduction in carbon footprint of more than 10 percent. Five ethanol plants have signed commercial contracts, and trials with additional plants are underway.

## Expanding our global reach

In Asia, we launched START RIGHT, a 'first 45 days' solution for corn. The program combines products and protocols to ensure best establishment of the crop through land preparation, hybrid choice, seed treatment and crop protection. Offering yield improvement of over 10 percent, this is an ideal solution for Asian growers who require know-how and technology in order to improve their farming practices.

In line with our ambition to accelerate the development of agriculture in Africa, we acquired MRI Seed Zambia Ltd, the leading developer, provider and distributor of white corn seed in Zambia. The white corn market has high growth potential, and the crop is critical to Africa's future food security. The acquisition also establishes a foundation for building our seeds business and providing locally-tailored integrated solutions including seed treatment and crop protection.

## Diverse field crops

## Sales in Diverse field crops \$m



Crop Protection	728
Seeds	700

## 2013 sales

\$1,428m

## Target sales \$m

2015	~1,500
2020	>2,200

## Diverse field crops pipeline highlights

■ Integrated Solutions ■ Crop Protection ■ Seeds

## 2013

■ Crop vigor and plant establishment: CRUISER®, HELIX XTRA®, FORCE® MAGNA

■ High value hybrids: NK®, SYNGENTA®, SPS®, MARIBO®, HILLESÖG®

## 2015

■ Total control solutions: broomrape, nematodes, *Rhizoctonia*, *Phoma*

■ New launches: AMISTAR TOP®, CLARIVA™

## 2020

■ Next generation herbicide tolerance

■ Wild trait introgression



For full pipeline visit:  
[www.syngenta.com/ar2013](http://www.syngenta.com/ar2013)

Sunflower, oilseed rape and sugar beet are all suited to crop rotation with cereals, offering healthy returns on investment.

Global vegetable oil production is expected to continue growing by over 3 percent a year, driven primarily by food requirements, but also by biofuel and industrial applications. Sunflower and oilseed rape make up almost a quarter of this market and benefit from rising demand for healthy oils. Sugar beet provides about 20 percent of the world's sugar and is used mainly for food and to a limited extent in biofuels.

All three crops present significant opportunities for further intensification through technology. We expect strong growth in the future as we build on our leading seeds and crop protection portfolios to launch integrated offers.

## Sunflower

We recognized the potential to expand our sunflower business a number of years ago. Over the past 10 years, annual sales growth in seeds has averaged 24 percent with internal expansion supplemented by acquisitions. Today, we are the global market leader and are leveraging our strength in seeds to expand the use of seed treatment and crop protection chemicals in order to protect yields.

**New center to focus on broomrape**

"The main problems that threaten sunflower today are pests and diseases, particularly broomrape. Syngenta has varieties that are resistant to IMI herbicides. We would like to invest in this technology to protect our crop against broomrape."

**José Miguel Gallardo**

Sunflower grower,  
Cádiz, Spain



More online:  
[www.syngenta.com/ar2013](http://www.syngenta.com/ar2013)



Our strategy is to offer growers premium high-yielding hybrids, including high-oleic types, adapted to local market environments; to ensure reliable supplies of top-quality seeds globally; to provide innovative weed management solutions to maximize yield; and to drive further technology adoption in emerging markets – particularly the CIS and other Eastern European countries.

A key challenge for sunflower growers is broomrape, a devastating parasitic weed that infests over half of the acreage in Europe. In 2013, we reinforced our leadership in combating this threat by opening a state-of-the-art facility in Switzerland that integrates seed and crop protection research.

We continue to promote the benefits of conservation tillage and pioneered the use of IMI herbicides with IMI-resistant seeds for weed control since their first introduction in 2003 in Turkey. In 2013, we commenced the launch of Syngenta-branded IMI products such as CAPTORA® and LISTEGO®, and this will soon be followed by Clearfield® Plus<sup>1</sup>, a next generation IMI-based trait, which will provide growers with better weed control and improved oil content.

The ongoing expansion of CRUISER® seed treatment in Eastern Europe is enabling growers to control insects using modern chemistry applied in an efficient and targeted way.

**Oilseed rape**

We are expanding in Europe as growers upgrade to hybrids offering superior yield and profitability, supported by our leading crop protection portfolio. In 2013, we launched PLENUM®, a new mode of action insecticide, and TOPREX®, combining growth regulator and disease control features. SYMETRA®, a new SDHI fungicide, follows in 2014.

In Canada, highly profitable biotech hybrids have driven a doubling of canola acreage in 10 years. We have a strong position in cereals and pulses that farmers rotate with canola. To build on this, we have in-licensed canola hybrids to offer a Whole Farm Approach including crop protection and protocols that maximize profitability across all crops in the rotation.

**Sugar beet**

In the USA and Europe, sugar beet is very profitable with a high level of intensification, and it remains one of the most attractive rotation crops. Seed quality is crucial, and in 2013 we enhanced our ability to select the best seeds with our new CATscan system. We continue to upgrade our Seedcare offer with the further ramp-up of FORCE® MAGNA, providing insect protection and improved sugar yield. Demand for our nematode-resistant hybrids is growing strongly and we are developing an integrated solution with CLARIVA™ for launch in the USA in the 2015 planting season. CLARIVA™ is a breakthrough biological nematode seed treatment based on natural soil bacteria.

*Rhizoctonia*, which causes a wide range of fungal diseases, is a growing challenge. Our integrated solution comprising genetics and foliar chemistry has driven sales in the USA, and we are extending it to Russia where the disease is increasing. To complete the offer, we will be launching VIBRANCE® in the USA for the 2015 planting season followed by launches in Europe in 2016.

<sup>1</sup> Clearfield® is a registered trademark of BASF



## Crops in focus

## Soybean

## Sales in Soybean \$m



■ Crop Protection 2,127

■ Seeds 450

## 2013 sales

**\$2,577m**

## Target sales \$m

2015 ~3,000

2020 ~4,000

## Soybean pipeline highlights

■ Integrated Solutions ■ Crop Protection ■ Seeds

## 2013

■ Broad portfolio for weed resistance and early season control: FLEXSTAR®, PREFIX®, SEQUENCE®, FUSILADE®, BOUNDARY®

■ High-performance seed treatment: CRUISER®, AVICTA®, VIBRANCE®, CLARIVA™

## 2015

■ Expand high yield solution, land optimization, rust integrated solution

■ Improved control of late cycle diseases and *Sclerotinia*

## 2020

■ Stress tolerant genetics, drought solution

■ New GM: Insect resistance, rust, nematode

For full pipeline visit:  
[www.syngenta.com/ar2013](http://www.syngenta.com/ar2013)

Soybean is the world's primary source of protein. About 80 percent is used for animal feed, with the remainder used either directly for food or in a wide range of industrial products. Demand is global and just three countries – the USA, Brazil and Argentina – account for over 80 percent of production. With consumption in China in particular continuing to increase rapidly, global soybean production is expected to triple between 1990 and 2020.

## Building on strength in crop protection

Soybean growers face a broad range of diseases, pests and other growing challenges, and Syngenta offers them an unrivaled portfolio of crop protection products. Increasingly, these are incorporated into integrated solutions, which differentiate our offer and improve return on investment for our customers.

In parts of Latin America, the tropical climate means that disease control is a key priority for growers. Our leading position in the control of soybean rust – a devastating disease estimated to have caused \$20 billion in losses since 2000 – has been founded on PRIORI XTRA®. This product is based on AMISTAR® technology, which will also form part of integrated solutions combining new chemistry with rust-tolerant genetics and seed treatment. In addition, ELATUS™ showed excellent performance against soybean rust in its first season in Paraguay. The Brazilian launch for this new fungicide is targeted for the first half of 2014.

We also provide a full range of insect management solutions adapted to the pest spectrum in different markets. In Brazil, we have developed an integrated program to manage the growing pressure experienced from stinkbug attacks.

Producing more  
from the same land

"In addition to their comprehensive product portfolio, Syngenta also provides me with the guidance I need to deliver a high quality and productive soybean and cotton crop in one season."

**Rodrigo Medeiros**  
Production Manager,  
BDM Group,  
Rondonópolis, Mato Grosso,  
Brazil

More online:  
[www.syngenta.com/ar2013](http://www.syngenta.com/ar2013)



The program provides outstanding protection by managing stinkbugs while the soybean pods are being formed. In the USA, the AMS APHID MANAGEMENT SYSTEM™ combines an aphid-resistant native trait with CRUISERMAXX® seed treatment and WARRIOR® II crop protection to prevent aphid damage, which can result in up to 50 percent yield loss. Our ability to control below-the-ground pests has been further expanded following the registration of FORTENZA® seed treatment in Argentina.

Efficient weed control is essential to ensure strong plant stand and maximum in-soil water and nutrient uptake. However, increasing glyphosate resistance is resulting in a more complex weed management challenge. We have led the market in establishing the importance of early season weed management using formulations containing both non-selective and selective herbicides.

Soybean nematodes, which are hard to detect in the soil, cause production losses of over \$3 billion per year. In addition to AVICTA® COMPLETE for broad spectrum control, we have now launched CLARIVA™ COMPLETE for biological control of cyst nematodes.

### Seeds: the grower's first choice

We have established a diverse genetic pool, which we are combining with all leading genetically modified technologies on the market. Our aim is to accelerate the pace of genetic gain through our Yield Engineering System, which increases the responsiveness of the development process and leverages our scope for global germplasm exchange.

### Expanding the scope of our technology

Foliar fertilizers offer a significant yield effect and good profitability compared with commodity fertilizers. In Brazil, we have launched the nutrient QUANTIS™, which has delivered average gains to growers of \$85 per hectare.

We have also piloted a high yield soybean offer customized for the full season and local conditions and including yield assurance. Average grower yield increases have been significant; in some cases double the Brazilian average. We will be scaling the offer up in Brazil and expanding the pilot to Argentina and the USA.

### Enabling growers to establish sustainable farming models

Europe is dependent on imported soybean and is leading demand for certified produce grown under sustainable farming models. Syngenta is the first company to provide services that help growers adapt their operations so that they can qualify for sustainability certification and capture a price premium. Our SUSTENTIA™ program, launched in Argentina in 2012, already covers 20,000 hectares. Plans are underway to extend the program to Brazil.

## Sugar cane

### Sales in Sugar cane \$m



Crop Protection	290
Seeds	0

### 2013 sales

**\$290m**

### Target sales \$m

2015	~650
2020	~2,000

### Sugar cane pipeline highlights

■ Integrated Solutions ■ Crop Protection ■ Seeds

#### 2013

■ Integrated fields

■ Unique chemical solutions for biotic stress: MODDUS®, CALLISTO®, ACTARA®

#### 2015

■ Planting offers: seed treatment solutions PLENE® EVOLVE™, PLENE® PB

■ New disease solutions

#### 2020

■ New PLENE®

■ New portfolio of abiotic stress solutions



For full pipeline visit:  
[www.syngenta.com/ar2013](http://www.syngenta.com/ar2013)

Global demand for sugar cane continues to expand. Sugar for human consumption still accounts for around 70 percent of the total, with growth coming in large part from dietary change in the emerging markets. Ethanol use reflects blending mandates in a number of countries and is particularly advanced in Brazil, the world's leading producer of sugar cane accounting for over a third of global output.

Sugar cane has a long crop cycle – lasting on average 6.5 years – and demands significant up-front investment. In Brazil, low renewal rates and insufficient use of crop protection, combined with unfavorable weather, have impacted both yield and quality in recent years.

Despite the difficult market conditions, Syngenta has more than tripled sales in Brazil since 2009. We are playing a leading role in developing technology awareness, working with many of the major vertically-integrated producers of sugar and ethanol.

## Crops in focus

### Benefits beyond pest control

Insects, weeds and foliar diseases can reduce sugar cane yield by more than 50 percent. We are able to offer a full range of crop protection products throughout the growing cycle, adapted to both newly planted cane and to ratoon, the roots and lower parts of the plant left in the fields after harvesting.

The benefits extend beyond pest control by boosting plant vigor: our combined offer of ACTARA® and MODDUS®, for example, builds a stronger root system for better nutrient and water uptake and enables the plant to better withstand mechanized harvesting, which is increasingly used in Brazil. Sugar levels at the time of harvest can be elevated by the use of a ripener; with the adoption rate currently at 14 percent, this segment has considerable scope for expansion.

### Expanding our PLENE® offer

In 2013, we established a new platform for PLENE®, our novel growing system bringing together chemicals and genetics. At our biofactory in Itápolis, we have developed two new offers: one for growers with established sugar cane nurseries and one for those who want to set up nurseries in order to achieve improved yields.

PLENE® EVOLVE™ is a young plant offer that introduces new varieties containing high-quality genetics. PLENE® PB is a pre-germinated bud to accelerate nursery expansion. PLENE® PB can also be used for gap filling; 20 percent of Brazilian fields contain gaps leading to significant yield loss. While launching these new PLENE® offers, we are working to re-scale the original PLENE® concept, which will be focused on large-scale commercial planting.

We are now demonstrating our whole vision for sugar cane on 300 commercial areas with a fully integrated portfolio, which from 2014 will include PLENE® PB as well as PLENE® EVOLVE™.

Our innovation in sugar cane is supported by a global network of research and development activities, and by more than 100 agronomists.

## Cereals

### Sales in Cereals \$m



Crop Protection	1,648
Seeds	124

### 2013 sales

**\$1,772m**

### Target sales \$m

2015	~2,000
2020	~2,800

### Cereals pipeline highlights

■ Integrated Solutions ■ Crop Protection ■ Seeds

#### 2013

■ Seed treatment and crop enhancement innovation: CRUISER®, CELEST®, MODDUS®, PALISADE®

■ Leading seeds business: wheat and barley

#### 2015

■ Integrated solutions: hybrid barley, weed management, *Fusarium* control

■ New product launches: VIBRANCE®, SEGURIS®, BONTIMA®

#### 2020

■ Targeted chemical-genetic interaction, new business models

■ Hybrid wheat: biotic, abiotic traits



For full pipeline visit:  
[www.syngenta.com/ar2013](http://www.syngenta.com/ar2013)

Cereals – chiefly wheat and barley – are a staple crop in more than 120 countries. They are the world's largest crop by acreage and the largest food crop. They represent a major growth opportunity for Syngenta with significant potential for technification.

### Technology is the key to growth

We are currently the market leader in cereal seeds and have strong positions in all crop protection categories. Sales growth will be driven by applying technology to achieve higher yields and more consistent quality. Our presence across all the world's significant cereals markets gives us an unrivaled ability to tailor solutions specifically to local conditions.

Our strategy has three key elements. We are using new technology to develop high-performing hybrid barley. We are forming new partnerships with seed multipliers to develop a deeper understanding of protocol management and new solutions for weed and disease control. And we are working with new customers – food companies and manufacturers – to understand what they want from growers in order for their brands to meet consumer expectations.

Above all, these new customers need to source the right quality and quantities of raw material. As they reach global scale, they want to source locally, to consistent standards, wherever they operate.

### Increasing yields with HYVIDO®

"Over the five years we've been growing it, I have consistently got a yield advantage over standard barley. Up to a ton a hectare. And for me that means increased profit."

**John Porter**  
FA Porter and Sons,  
Yorkshire, UK



More online:  
[www.syngenta.com/ar2013](http://www.syngenta.com/ar2013)



This is a challenge that, with our worldwide presence, we are well placed to address – providing appropriate seeds, crop protection and protocols to drive performance.

We are working with a number of global companies to satisfy their needs in malting barley, durum wheat for pasta and quality wheat for bread. Strategic partnerships such as those with InterGrain in Australia and Buck Semillas in Argentina are helping this process by widening our access to local germplasm.

### Hybrids for guaranteed results

Our hybrid barley, HYVIDO®, offers farmers a 10 percent yield increase and more than doubles their return on investment. In the UK, an integrated solution optimizing HYVIDO® with a specific crop protection protocol narrowly missed breaking the world record for feed barley yield in 2013. Our confidence in the offer is demonstrated by a cashback yield guarantee in the UK and France, which will be extended to other countries in 2014.

For wheat – grown on more than 220 million hectares globally – hybridization will be a game-changer for growers and our industry alike. Our dedicated R&D program is adapting our barley technology to deliver commercial hybrids within 10 years.

### Gaining ground in crop protection

Our SDHI fungicides, SEGURIS® OPTI for wheat and BONTIMA® for barley, have already proved their value in the UK and Ireland. They were launched in Germany in 2013 to a very positive market response, and we are now seeking registration in France.

Following initial launches in 2012, our SDHI seed treatment, VIBRANCE®, increased sales more than fivefold with particularly strong growth in North America and France. AXIAL® continued to gain market share across all selective herbicide markets.

Our work with new downstream customers is highlighting ways they and farmers can use multiple technologies for better protection against *Fusarium*. This major cereals disease can produce mycotoxins that cut yields and result in grain rejection – a particular challenge in the pasta industry.

### Major activities in 2014

In 2014, we will launch HYVIDO® in Iberia, Denmark, and the Czech Republic. In Germany and France, we are launching second-generation barley hybrids, a further advance on conventional lines and our existing hybrids.

We are also introducing a number of new herbicide combinations to better control weeds that are becoming resistant to existing products, and we will increase our presence in the autumn wheat market across Europe.



## Crops in focus

## Rice

## Sales in Rice \$m



## 2013 sales

**\$653m**

## Target sales \$m

2015	~1,000
2020	~2,000

## Rice pipeline highlights

■ Integrated Solutions ■ Crop Protection ■ Seeds

## 2013

■ TEGRA® prototype

■ GROMORE™ expanding crop protection technology footprint

## 2015

■ TEGRA® expansion

■ RISOLUTION PRO™ and OPTIGRO™

## 2020

■ Next generation hybrid rice

■ GM traits: insect control



For full pipeline visit:  
[www.syngenta.com/ar2013](http://www.syngenta.com/ar2013)

Rice is the staple food of almost half the world's population. Demand is rising rapidly driven by population and economic growth, but productivity is not keeping pace. Unless yield improvement is accelerated, future shortages and price inflation are inevitable – a worrying prospect for the billions who rely on this crop every day.

Asia accounts for 90 percent of global rice production and consumption. Only 7 percent is traded internationally; the rest is consumed locally. And because it is largely consumed directly rather than being processed, it is important that its color, appearance, aroma and taste correspond to local consumer preferences.

The scope for productivity improvement is considerable: China produces over 7 metric tons per hectare while India and Thailand average only around 3. To close the gap, we must find solutions that work for smallholders – over 100 million of them in Asia alone.

## Raising smallholder productivity

Substantial advances will come from applying all the technology at our disposal: using genetics to increase yield, crop protection to secure this yield and agronomic protocols tailored to local conditions.

## Protecting biodiversity in rice

Initiated by Syngenta and the Miyagi Tome Agricultural Cooperative, the Rice Biodiversity Program examines the impact of different crop protection solutions on the range and number of native species in rice paddies. It also makes suggestions to help growers increase their productivity while protecting the biodiversity of their land.



More online:  
[www.syngenta.com/ar2013](http://www.syngenta.com/ar2013)



Currently, our crop protection portfolio is having the greatest impact. GROMORE™ protocols combine our existing technologies into tailored agronomic and crop protection protocols for each of the four key phases of the crop. These are easy for smallholder farmers to use and have brought immediate results, with yield gains of up to 30 percent for growers in Bangladesh and Indonesia. Sales in these countries are growing, and in 2013 we launched GROMORE™ in Thailand and Malaysia and prepared for 2014 launches into India, the Philippines and China.

Our integrated growing system TEGRA® is also expanding rapidly from a smaller base, with a five-fold increase in uptake in 2013. TEGRA® enables growers to address poor yields and rising labor costs by transplanting high-quality seedlings treated with special formulations into their field. This is followed by tailored agronomic and crop protection protocols for the critical first 60 days. Yield gains average 30 percent, and in India we have progressed from pilot to scale-up phase, with trial customers adopting TEGRA® for their entire farm and convincing neighboring growers to try it. Working on a larger scale is also deepening our understanding of this new technology. A pilot is now underway in Bangladesh.

### Solutions for larger-scale growers

For larger farms we are developing more advanced programs. TEGRA® NURSERY is for farmers who want to grow and mechanically transplant their own seedlings. Pilots will begin in 2014.

OPTIGRO™ and RISOLUTION™, both designed for more sophisticated large-scale growers, continue to meet their development milestones.

### Seeds of future growth

Seeds currently account for around 3 percent of our Rice sales, but will be an important driver for future growth. Better genetics are one of the keys to better yields, and new hybrids offer the prospect of enhanced consumer appeal as well as yield. The successful integration of Devgen in 2013 has strengthened our existing offer and pipeline, and has given us as a much larger germplasm base for further hybrid development.

## Specialty crops

### Sales in Specialty crops \$m



Crop Protection	2,003
Seeds	1

### 2013 sales

**\$2,004m**

### Target sales \$m

2015	~2,500
2020	~4,000

### Specialty crops pipeline highlights

■ Integrated Solutions ■ Crop Protection ■ Seeds

#### 2013

- Partnerships: germplasm, crop protection and seed treatment in cotton
- Crop protection technology footprint and breadth

#### 2015

- Chemical-genetic solutions: potatoes and cotton
- Crop enhancement potential for abiotic benefits: VERDADERO®, AMISTAR®, MODDUS®

#### 2020

- Chemical-genetic solutions: tree and vine crops
- Adjacent technologies integrated into solutions



For full pipeline visit:  
[www.syngenta.com/ar2013](http://www.syngenta.com/ar2013)

Our Specialty crops business covers over 40 diverse, high-value crops grown around the world. Four crop groups account for around 80 percent of total sales: potatoes, cotton, fruits and plantation crops such as bananas and coffee.

Growth prospects are particularly strong in the emerging markets, driven by three main factors: shifting dietary preferences; changes in climatic conditions, which influence where and how crops are grown; and increased trading of both processed and fresh produce.

Our strategy is based on leveraging our blockbuster chemistry, developing and scaling up integrated offers and focusing on new business models such as NUCCOFFEE®.

## Crops in focus

### Better deals for coffee growers

We continue to expand our global leadership position in coffee through portfolio rejuvenation with new product introductions underway for coffee leaf rust, nematode and coffee berry borer control, integrated offers focusing on productivity and quality, and further development of innovative business models and partnerships in Brazil, Latin America North and ASEAN.

In Brazil, our proprietary NUCOFFEE® business model continues to advance. Originally focused on medium-sized and large farms, we are now reaching 800 smallholder farmers through our commitment to increase their productivity sustainably. Our aim is to expand the initiative to reach 10,000 smallholders in 2017, offering extension services, financing, social and environmental standards and traceability.

In Colombia, our INCREMENTA® CAFE offer includes technical assistance to help growers improve agronomic practices, resulting in superior pest and disease control and yield increases of 25 percent compared with current commercial practices.

### Integrating quality and sustainability in plantations

To meet the increasingly rigorous expectations of consumers and the food chain, we are developing integrated solutions for a number of crops, combining chemical and biological controls. In cocoa plantations, our integrated crop management programs increase plantation yields by more than 20 percent, and our value chain engagement ensures market access for growers resulting in increased returns.

In bananas, we have the industry's leading portfolio for disease and insect control, including isopyrazam for control of the widespread black sigatoka disease. We are also focusing on productivity and root health solutions, and are offering services and adjacent technologies for improving crop management and reducing labor costs.

### Potatoes: a key contributor to food security and nutrition

We have the market-leading crop protection portfolio in potatoes, with particular strength in seed treatment and fungicides to control blights. Yields in developed markets exceed 40 metric tons per hectare, but are generally much lower in emerging markets. To address this yield gap, we are expanding our portfolio to include seed production through partnerships with seed companies, and increasing our focus on the early crop establishment stage. Low yields are a result of poor seed health, with viruses brought in by inadequate aphid control reducing the vigor of the crop. We are integrating existing technologies with our seed treatment and crop protection programs for in-field propagation to improve the production of healthy seed.

### New biological options

We are incorporating bio-controls into our insect and disease control programs to combat resistance and meet secondary standards for residues imposed by retailers. Our strategy is to continuously scout for new early stage technologies, and then work with selected third parties to evaluate performance in the field and utilize our formulation capabilities to develop commercial products.

Biologicals are expanding the scope of our integrated offers in specialty crops. The Fruits Quality Contract, which includes SAKALIA® to treat powdery mildew and botrytis, enables growers to meet changing market requirements. The use of bio-stimulants such as ISABION® for plantation crops provides young trees with balanced nutrition to promote root development and encourage flowering. In bananas, integrated spray programs including biocontrols are delivering sustainable control of the sigatoka disease.



## Vegetables

### Sales in Vegetables \$m



Crop Protection	993
Seeds	708

### 2013 sales

**\$1,701m**

### Target sales \$m

2015	~2,000
2020	>3,000

### Vegetables pipeline highlights

■ Integrated Solutions ■ Crop Protection ■ Seeds

#### 2013

■ Growth stage programs for emerging markets

■ FARMORE® growth: fungicides, insecticides

#### 2015

■ Integrated program for protected vegetables production

■ Expanding output traits portfolio all crops

#### 2020

■ Integrated young plant solutions

■ Breakthrough resistance management



For full pipeline visit:  
[www.syngenta.com/ar2013](http://www.syngenta.com/ar2013)

The world grows some 1 billion metric tons of vegetables each year, with production typically close to consumption in all regions. Prices can fluctuate sharply with the supply/demand balance, and many growers invest in multiple crops to reduce risk.

Our strategy leverages our strengths across genetics, chemicals and biological controls to expand our global presence and meet the value chain's evolving demands. Processors and retailers seek ever better appearance, flavor, choice and longer shelf life while imposing chemical residue limits over and above established safety standards. To suit diverse local preferences, vegetables are grown in many different varieties.

We make substantial investments in marketing and technologies such as molecular markers that help us enrich our germplasm base through conventional breeding. Our growth in 2013 reflected our strong offer, supported by market conditions worldwide that were generally more favorable than in 2012.

### Sustainable market access

"I have low residue produce, and my plants are now treated with 30 percent less chemicals."

**Giuseppe Arrabito**  
Azienda Agricola  
Fratelli Arrabito,  
Scioli, Italy



More online:  
[www.syngenta.com/ar2013](http://www.syngenta.com/ar2013)



## Crops in focus

**New business models to support growers**

We made further progress in developed markets with integrated crop management programs that help growers satisfy value chain needs, together with an increasing focus on sustainability and productivity. We now have integrated programs for many crops including tomatoes, peppers, cucumbers, melons and squash. We are also introducing innovative commercial approaches, such as offering our programs at an all-in price per hectare. This helps growers to compare input costs with returns and better understand the benefits of investment in technology.

Growers who begin their harvest early in the season can command premium prices, so we are developing ways to enhance this capability. In 2013, we successfully piloted a new program for pepper growers in Israel, combining genetics, crop protection and technical advice. The program provides yield benefits of more than 20 percent even on varieties that have been on the market for many years.

**Boosting smallholder productivity**

Smallholder productivity, particularly in emerging Asia and Africa, has been hampered by relatively low investment in technology. Drawing on our successful GROMORE™ rice protocols, we have developed equivalent smallholder programs for many vegetable crops. By focusing on key intervention points in the growing cycle, these programs help growers improve vegetative development and flowering to increase marketable yield. Their simplicity ensures that they can be easily communicated and understood.

**Lawn and Garden****2013 sales****\$691m****Target sales \$m**

2015 ~800

2020 &gt;1,000

Syngenta is the world leader in the professional turf and landscape, pest management and flowers markets. Our Lawn and Garden ambition is to enrich lives by making the living environment inspiring and healthy. Our strategy is to simplify our customer approach, focusing on profitable integrated solutions using high-value chemistry and genetics.

**Flowers: simplify and focus**

In 2013, we further simplified our Flowers business to concentrate on the most profitable areas of the portfolio. Eliminating some 2,000 lower-value varieties has reduced revenue, but will lead to a significant improvement in profitability.

Listening to the value chain – growers, retailers and consumers – has highlighted the demand for plants that are easy to produce and transport, have long shelf lives and need minimal consumer care. In response, we have partnered with The Scotts Miracle-Gro Company in the USA to develop, market and sell a range of flowers combining superior genetics with nutrient and protection technology. These flowers meet logistical and retail requirements and last for a full season. Our premium priced offer to consumers – Season-long garden performance. Just add water. – is backed by a three-month guarantee that the plant will thrive.

### Saving ash trees in the USA

The health of ash trees in the USA is under threat. Injecting them with Tree-äge<sup>®1</sup>, an insecticide based on Syngenta's active ingredient emamectin, protects them against the Emerald Ash Borer, an invasive pest that has killed tens of millions of trees across the country.



More online:  
[www.syngenta.com/ar2013](http://www.syngenta.com/ar2013)



In 2013, we completed a successful commercial test market with these branded plant offers in over 60 The Home Depot stores around Chicago. We are now scaling up production for commercial launch in the USA and working with the international DIY chain OBI to launch in Europe.

### Turf and landscape, pest control: scaling up

In the golf market, we have been contributing strongly to the broader industry debate around the sustainability of the game, and we are well on track in our ambition to become the partner of choice in improving productivity and sustainability as well as the overall golfing experience.

As golfers have become more environmentally aware and demand for courses to be managed sustainably has grown, we have been making effective use of our biodiversity expertise to help meet sustainability goals. For example, we have extended our biodiversity program OPERATION POLLINATOR<sup>™</sup> to golf courses, and we recently signed an agreement with an international hotel chain to plant pollen-rich wildflower habitats on 17 of its courses. These customer-centric initiatives, together with a broad portfolio offer, are helping drive market share gains in the turf segment across regions.

Having successfully integrated the DuPont insecticide business acquired in 2012, we are now ramping up Syngenta's presence in professional pest management. Increasing urbanization and prosperity, together with the drive for global standards for healthy environments, presents a significant growth opportunity in the delivery of pest management solutions to consumers and to commercial customers such as food service providers, hospitals and hotel chains.

<sup>1</sup> Tree-äge<sup>®</sup> is a registered trademark of Arborjet, Inc.



# Building on our strengths

Our goal is not just to transform agriculture. We are also committed to doing it sustainably. These dual ambitions shape every aspect of our operations, focusing our own efforts and driving the way we collaborate with partners and suppliers to achieve beneficial change rapidly and responsibly.





## Research and Development

Research, development and innovation are at the heart of Syngenta's strategy and The Good Growth Plan. With over 5,000 people in Research and Development (R&D) centers and field stations worldwide, we deliver innovation that addresses growers' need to increase farm productivity sustainably. At the same time, we continue to meet the ever-higher expectations of regulators, crop processors and consumers. In 2013, we invested \$ 1.38 billion in R&D.

### Investment in Research and Development

\$bn



Our R&D strategy covers both our core business in biotic stress management and promising new technology areas. These include: RNA interference (RNAi), areas where computational science and biology meet, and environmental stress.

Our pipeline will bring value-added integrated solutions that enable growers to deliver the yield increases targeted in our Good Growth Plan. We have also dedicated resources to address the specific needs of smallholders and help fulfill our commitments in this area.

### Investing in innovation

We are investing in new facilities designed to support our strategy by facilitating collaborative, multidisciplinary working across crops and scientific disciplines.

At our Research Triangle Park site in North Carolina, USA, we opened a \$72 million Advanced Crop Lab, the largest single R&D infrastructure investment in our history. This new facility can simulate any agricultural climate – enabling scientists to collaborate on global challenges from one site across multiple crops. A second phase is due for completion in 2016.

At Jealott's Hill, UK, we opened a new Doubled Haploid production facility to accelerate our work on hybrid wheat. And in Switzerland we began the latest in a series of major enhancements at our Stein research center. We will be investing \$48 million to provide multi-purpose facilities including greenhouses, growth chambers and offices designed to facilitate collaboration and knowledge sharing.

An important acquisition made in 2012 – Devgen – has already achieved success by combining our crop protection portfolio and GROMORE™ protocol with Devgen's rice hybrids. The rice R&D teams are working well together, sharing expertise and breeding approaches to develop a portfolio taking the best of both companies' previous work and to realize the potential of integrated solutions.

Devgen's pioneering work in RNAi has enabled us to use its Ghent facilities (Belgium) as the center of excellence for expanding our global RNAi platform as we seek to apply this technology in biological pest control and new traits.

### Delivering innovation

We delivered a number of new products in 2013. HYVIDO®, our range of 12 barley hybrids, was launched across Europe. Our innovative concepts and production methods, combined with the skills of our breeders, have given us a substantial lead in barley hybridization.

AGRISURE® DURACADE™, our new corn rootworm trait, received approval in the USA. Developed to produce a unique insecticidal protein, it has a new mode of action. In combination with our existing AGRISURE® rootworm trait, it will provide unmatched control of an insect that is increasingly resistant to existing controls.

CLARIVA™, launched in the USA, is our first application of technology obtained through the acquisition of Pasteuria Bioscience Inc. It is a seed treatment technology that uses natural bacteria to combat soybean cyst nematodes. These worm-like soil organisms cost growers almost \$1.5 billion annually in the USA alone. Our technology has annual sales potential of over \$100 million in soybean and will be expanded into other crops.

ELATUS™, which received its first registration in 2012, is currently going through the registration process in a number of Latin American countries. This fungicide sets new standards in rust control for soybeans, and is based on our work on SDHI chemistry including isopyrazam and sedaxane. This work highlights our ability to develop a family of related molecules tailored to specific crops and pest targets.

## Our business enablers

### Tailor-made growing environments

"We built this facility to create the environments we want to study our plants in."

#### Mike Nuccio, Ph.D.

Principal Research Scientist,  
Syngenta  
Research Triangle Park,  
North Carolina, USA



More online:  
[www.syngenta.com/ar2013](http://www.syngenta.com/ar2013)



We have a full seeds pipeline, with projects progressing well for all our key crops. They include our hybrid wheat program, strong innovations in hybrid rice due in part to the Devgen acquisition, and broomrape control in sunflowers. Major developments in our crop protection pipeline include progressions in our insecticide chemistry and successful deals for new technology such as our collaboration with DuPont.

### Partnering with others

We collaborate with hundreds of universities, institutes and companies, and agreed on several promising new partnerships in 2013.

In the UK, we are working with Rothamsted Research Ltd in a partnership focused on Rothamsted's 20:20 Wheat Programme to "increase wheat productivity in a sustainable way to yield 20 tonnes per hectare within 20 years". The partnership aims to translate state-of-the-art scientific knowledge into technologies that will benefit farmers directly, provide support to UK agriculture, contribute to UK economic growth, and improve wheat yields worldwide.

Using Netherlands-based PlantLab's expertise in LED lighting and controlled climates, we aim to accelerate breeding, make biological assessments more efficient, and produce higher-quality plants. Our multi-year joint research project will have a significant impact on the speed and cost of young plant production.

Our three-year partnership with Evogene Ltd in Israel is being extended to identify plant genes that provide resistance to soybean cyst nematodes. Soybean growers can lose more than 20 percent of their yield to this pest, while defenses against it are limited. Evogene's computational capability enables us to make best use of our genetic data, and the work has potential beyond soybeans.

We continue to use internet platforms to attract new ideas and share our own intellectual property. In early 2013, we launched our Traitability e-licensing platform, giving plant breeders and research institutes easy access to our patented traits and certain biotech enabling technologies. Licenses are available on fair, reasonable and transparent terms, and are free of charge to academic and non-profit organizations.



## External recognition

Two accolades stood out in 2013. Firstly, Dr. Mary-Dell Chilton, who has been working as a scientist for our company since 1983, was named as one of three winners of the 2013 World Food Prize. She was recognized for her groundbreaking research on using plant bacteria in genetic engineering and for establishing one of the world's first industrial agricultural biotechnology programs. Secondly, *Science* magazine ranked us in its top 20 biotech employers for the fifth year running – this time placed at 13th. In particular, we were cited for treating employees with respect, being socially responsible and doing important, quality research.

## People

Our growth ambition requires us to attract, develop and retain the best talent in rapidly changing markets and workforce environments. In 2013, we continued to develop our people and HR strategies to address the needs of the business and our employees. While there was a slight increase in the people turnover rate to 14.1 percent, the number of voluntary leavers declined to 5.5 percent in 2013.

## Investing in our people

Throughout the year, employees participate in goal setting, review and development discussions with their line managers. These discussions enable them to take accountability for developing themselves and their careers. We invested \$27.1 million (+10 percent) in training programs to enable employees to achieve their full potential and develop the right capabilities for our business.

## Reinforcing a strong culture

We continue to recognize the critical role our strong culture plays in the successful delivery of our integrated strategy. In 2013, we invested in a major all-employee engagement program, which explored our values, culture and our new leadership model.

The changing nature of our industry requires all employees to work with external stakeholders to help shape the direction and perception of agriculture. This is recognized both in our corporate strategy and in The Good Growth Plan. For employees, the implementation of The Good Growth Plan includes opportunities to participate in community engagement activities, which support the achievement of our six commitments.



### Masters of their own safety

Syngenta's QUALI-SITE® program aims to reduce product exposure and work safety hazards. After monitoring activities at the facility, findings are shared with plant operators and employees involved in the seed treatment process. Based on their feedback and suggestions, a localized plan for improvement with an emphasis on training is then created.



More online:  
[www.syngenta.com/ar2013](http://www.syngenta.com/ar2013)

## Our business enablers

### Diversity and inclusion

A diverse and inclusive culture is fundamental to innovation; if we want to think like our customers, our diversity should mirror theirs.

Our work on fostering diversity is also focusing on gender. Our Diversity and Inclusion Steering Committee has laid the foundations, and we are now developing and implementing programs to encourage an increasingly diverse workforce. We are tailoring existing mentoring programs to promote gender balance, and piloting an accelerated leadership development program for women.

At the most senior level, our Board of Directors also mirrors our globally diverse company. It includes representatives from eight nationalities, drawn from broad international business backgrounds.

### Health, safety and wellbeing

The health and safety of our people is paramount. Since 2011, our Goal Zero initiative has sought to achieve zero harm to people and zero safety incidents.

We experienced a slight increase in our illness and injury rate in 2013 – to 0.41 per 200,000 hours worked, from 0.39 in 2012.

#### Recordable illness and injury rate per 200,000 hours



Most of the increase was reported in Latin America, where the transfer of seasonal field production workers from a third party to Syngenta exposed a need to strengthen safety management. This led to an increase in our recorded injuries, which we addressed throughout 2013 by increasing worker training and field visits by safety teams.

Across the rest of the business, we kept the number of incidents stable; in a growing workforce, this meant a lower illness and injury rate. There were no fatalities in 2013.

Key initiatives in 2013 included extending Goal Zero to field production and enhancing safety training for drivers. This training is now available in 48 languages and covers motorcycles as well as cars. Days lost through vehicle accidents were reduced by more than half in 2013.

Employees' wellbeing can be affected by a range of issues at home and at work. The number of work-related stress cases was reduced to 36 in 2013, following extensive consultation with employees at the Monthey site, where we reported an increase of cases in 2012. We also launched a global Employee Assistance Program for employees and their families, providing confidential, expert help from independent advisors.



See detailed "People" performance data on page 60



Read more about "People" on [www.syngenta.com/ar2013](http://www.syngenta.com/ar2013)

## Manufacturing and procurement

The Production and Supply strategy supports Syngenta's targeted sales ambition of \$25 billion by 2020. It aims to ensure we deliver innovation to our customers profitably, while maximizing economies of scale, and with the agility to respond quickly to unpredictable market movements.

### Expanding capacity

We continue to make major investments to meet demand in growth regions.

We are building two new crop protection units at our Nantong site in China, and have begun work on a new seeds site in Shandong to support projected vegetable seed sales growth. In the USA, we have been expanding corn and soybean seed production. We are also planning the expansion of an existing corn and sunflower seed site in Argentina.

### Encouraging a “Happy Better Life”

Our new initiative – Happy Better Life – is part of an ongoing partnership with the Fair Labor Association (FLA). It will provide farming communities in Thailand with training on fair labor practice, safe use and first aid. The first event brought together 120 corn growers in the village of Plak Koi, central Thailand.



More online:  
[www.syngenta.com/ar2013](http://www.syngenta.com/ar2013)



The strategic aim to reach more smallholders requires more products in small packs. In 2013, we opened a one-dose packaging line at Enofyta in Greece to produce 15 million packs of insecticides and fungicides a year for smallholders, mainly in Africa.

Our eight active ingredient (AI) sites continued to run at high capacity, further increasing production volumes at St. Gabriel and Greens Bayou in the USA and at Goa, India. All expansion projects were delivered on time and budget, including key projects at Monthey and Kaisten in Switzerland and at Huddersfield in the UK. Further expansions follow at Huddersfield, St. Gabriel and Monthey, as well as at Nantong in China.

### Operating efficiently

Our technology and engineering teams delivered many projects to install efficient new production and processing capacity. In addition, lean initiatives at processing sites significantly increased capacity and market responsiveness while reducing costs. The global sourcing team again achieved year-on-year savings while increasing capacity both internally and at our suppliers to support sales growth.

As well as supporting new product introduction, capacity expansion and suppliers' cost reduction initiatives, we made good progress in reducing single-source risk and improving HSE standards.

### Working responsibly

We aim to set the industry standard for health, safety, environmental and quality (HSEQ) performance.

As part of the 2013 Production and Supply strategy review, we made a detailed assessment of sustainability risks in the supply chain. This focused on water and effluent management, hazardous waste, suppliers' sustainability management and logistics.

We have a well-established HSEQ audit program covering all our activities and have developed a rigorous HSEQ assessment program to identify and address process safety issues in our active ingredient plants. In 2013, we enhanced our risk management by broadening its scope and tightening the training and competence requirements for auditors.

In Latin America, the transfer of seasonal field production workers from a third party to Syngenta exposed a need to strengthen safety management in this area, which we addressed immediately.



## Our business enablers

All our key suppliers must meet the HSEQ standards that we set for ourselves. We are currently extending the sustainability aspects of our supplier program to improve management in areas such as process safety, paying particular attention to our growing supplier base in China. In 2013, we carried out 124 HSEQ assessments at chemicals suppliers and 157 at warehouse/logistics service providers. To audit seed suppliers, we use a methodology developed jointly with the Fair Labor Association: the number of suppliers covered by this program rose from 17,625 to 22,895 over the year.

### Seed supply farms in the FLA Program

2013	22,895
2012	17,625
2011	16,880

Counterfeiting of our products can put users and the public at risk. In 2013, we further increased our efforts to combat this growing challenge, coordinating our own and other companies' activity through trade associations.

We launched several initiatives to protect the security of staff, their families and the public in high-risk countries. For people traveling to these countries, we introduced more stringent travel security controls. We established a new code of practice for armed guards covering issues such as selection, training and use of force. And we instituted risk-based background security checks for high-level recruits in countries and roles, where regulatory compliance is a particular concern.

We have also begun implementing a new security strategy to protect websites and systems from hackers and cyber-attacks.



See detailed "Manufacturing and procurement" performance data on **page 61**



Read more about "Manufacturing and procurement" on **[www.syngenta.com/ar2013](http://www.syngenta.com/ar2013)**

## Environment

The Good Growth Plan commits us to helping farmers produce more food without using more land, water or inputs, and we recognize our own responsibility to protect the environment. Our industry-leading commitment to environmental performance is crucial to developing and protecting our reputation with all our stakeholders.

As a manufacturer, we use natural resources to produce our seeds and chemicals. We aim to reduce our environmental footprint by actively managing our emissions and use of resources. Our Environmental Codes of Practice set minimum requirements for reducing potential soil, surface water and groundwater contamination. Our leaders are expected to champion our standards and encourage every employee to take personal responsibility for reducing our impacts.

Our production facilities use a robust environmental management system to monitor impacts and identify ways of reducing them. Our proprietary system is on par with current ISO, EMAS and OSHA systems, with a greater focus on risk management and reporting requirements.

### Communicating our standards

Local environmental regulations and enforcement vary widely. We treat all local requirements as an absolute minimum. The standards we set for ourselves are often more rigorous as we strive for consistency across the organization. And we constantly raise the bar to meet society's rising expectations.

Our formal policies and codes of practice are substantial documents. To communicate them more effectively, we have been testing a new visual approach using infographics in place of text. Publishing 10 of our standards in diagrammatic form has helped to improve employee understanding and compliance, and we are now extending the scheme.

## Measuring our performance

Higher production volumes increased our environmental emissions in 2013. As a consequence, our reported environmental impact rose across all measures. Our long-term aim is to grow a profitable business while controlling our environmental footprint. 2013 proved to be a difficult year with some challenges, but also successes.

Our carbon footprint in 2013 increased 9 percent to 1.7 million tonnes of CO<sub>2</sub> equivalent (CO<sub>2</sub>e). While we were able to slightly reduce CO<sub>2</sub> emissions from our operations, we observed a significant increase from purchased energy and distribution. We are committed to reducing our carbon footprint. A priority in 2014 is therefore to analyze CO<sub>2</sub> emissions in our supply chain and identify lower carbon options.

### CO<sub>2</sub>e emissions intensity

CO<sub>2</sub>e kg/\$EBIT

2013	0.75
2012	0.62
2011	0.61

Other air emissions rose to 1,514 tonnes (+7 percent) due to higher production levels as well as improved measurement capability at our sites in Grangemouth, UK, and Goa, India. The largest increase was observed at our Goa site with a significant increase of SO<sub>2</sub> emissions from 260 tonnes in 2012 to 464 tonnes in 2013, due to improvements in our waste treatment processes that led to higher incineration. A priority for 2014 is to reduce these emissions.

One of our priorities in 2013 was to gather more data about the volumes of water we consume and the sources we use. We also ran a risk assessment to understand potential future impacts of water scarcity on our production sites and our farmers; and we reviewed our existing processes and practices to reduce our risk exposures, including potential environmental impacts. With the constant growth of our seeds business, we are increasing the number of production sites that use irrigation water. As a consequence, our water use increased to 36.8 million cubic meters (+9 percent) in 2013.

Higher production volumes also increased waste. Hazardous waste increased by 24 percent to 235,200 tonnes partly as a result of an increase in on-site incineration. 71,900 tonnes (+20 percent) were recycled and 147,800 tonnes (+25 percent) were incinerated. Non-hazardous waste rose 20 percent to 131,700 tonnes, of which 100,500 tonnes (+26 percent) were recycled. The amount going to landfill was further reduced to 16,800 tonnes in 2013 (18,500 tonnes in 2012).

We experienced one unplanned release of ammonia due to temporary reduction on scrubber efficiency at our site in Greens Bayou, USA, with no lasting impact on the surrounding area. Corrective actions were taken immediately. Preventive actions, such as training and new operating instructions have also been put in place to avoid reoccurrence.

We continue to enhance our environmental reporting by improving data quality and adding sites to the reporting scope. To drive performance improvement, we are implementing site-specific efficiency programs for energy, water, air emissions, and waste generation, to focus on the initiatives that will have greatest impact.

In 2013, our Environment team worked on setting new goals both externally and internally. As part of The Good Growth Plan, we set out what we intend to achieve in the world beyond our own farms and production sites; internally, we have been integrating sustainability into the strategic review for our Production and Supply (P&S) operations. We are now entering a new phase of sustainability development – building on the work we have done in P&S to set new goals, which will be introduced in 2014.



See detailed "Environment" performance data on **page 62**



Read more about "Environment" on [www.syngenta.com/ar2013](http://www.syngenta.com/ar2013)

## Our business enablers

### Responsible agriculture

Our ambition of helping farmers to increase their production sustainably means we must ensure that our products remain available, safe and effective in the future. This means managing our technology responsibly, and making sure it is used correctly.

It starts with R&D, where we think holistically about new molecules and seed varieties – considering safety, environmental impact and regulatory concerns next to efficacy at the earliest practicable stage. It also includes training farmers to use the right protocols, and to handle and store our products safely.

### Making products fit for the future

Our approach is increasingly proactive and is reshaping our crop strategies. Our product teams are integrating sustainability into their strategies. This includes areas such as user safety, resistance and residue management, and environmental impacts.

These considerations are becoming an integral part of the way we develop solutions that are safe and profitable for farmers. In rice, for example, our TEGRA® system greatly reduces the need for chemical handling on the farm. It transfers much of the chemicals use to our nurseries, where young plants are grown in controlled conditions with strict stewardship measures.

Similarly, our GROMORE™ solution has very strict protocols for using chemicals efficiently. Farmers may be tempted to use chemicals too heavily, or to cut costs by using too little, which can lead to resistance. Our protocols maximize efficient use by ensuring that chemicals are applied in the right amount at the optimum time.

### Bee health

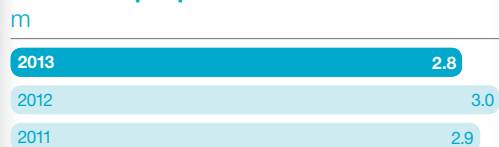
In December 2013, the EU began a two-year moratorium on neonicotinoid pesticides, including Syngenta's thiamethoxam. This followed major campaigns, which claimed a link between neonicotinoids and declining honey bee populations.

Honey bees, which are vital to farming, have clearly been impacted by a complex range of health threats. We are actively working with independent partners to understand these threats and possible solutions. Many years of independent monitoring have shown that neonicotinoids do not damage the health of bee populations when used properly, as they consistently are. We believe the EU's action has been driven by public disquiet and political pressure rather than scientific evidence. Nonetheless, the issue highlights the challenges we face in some countries regarding the societal perception of our products and what we do.

### Teaching people to use products safely

The health, safety and environmental impacts of our products are governed to a large extent by how they are used. In 2013, we ran 160 programs worldwide to teach the safe, efficient use and disposal of our products, reaching 2.8 million people. The focus of our programs has been to reach a large number of users, but we are aware of the challenge to also measure the effectiveness of the training.

#### Number of people trained



As part of our Good Growth Plan we are committed to maintaining a high level of training while enhancing its effectiveness. We recently completed a pilot study in Kenya to assess farmers' practices before and after training. We are currently analyzing the data to help us develop better measures for knowledge uptake, and we are already introducing post-training assessments to confirm what people have learned.





### For a sustainable livelihood

We are partnering with Cargill in Project Yiri+ to support cocoa growers in safe and sustainable practices. We're training growers in safe product use, good storage practices and pest management, as well as helping them to sustainably increase the productivity of their trees and the quality of their product.



More online:  
[www.syngenta.com/ar2013](http://www.syngenta.com/ar2013)

### Increasing sustainability and profitability of the farm

In Europe, we have taken a lead in sustainable intensification by establishing the INTERRA® network of best-practice demonstration farms. As well as keeping neighboring farmers up to date, these centers of expertise help educate and inform stakeholders such as local communities, government representatives, business partners, students and our own employees. In 2013, some 3,000 people visited the network's five farms, including the newly-operational sites in Hungary and Morocco. Three more sites are planned to be added to the network in 2014.

Our best-practice initiatives are always tailored to local needs. For example, in India, Project Nirmiti is equipping local entrepreneurs to provide knowledge and services to smallholders. In Guatemala, the lidemaya Partnership with NGOs is bringing our technology and training to smallholders, raising average productivity by almost half.



See detailed "Responsible agriculture" performance data on [page 64](#)



Read more about "Responsible agriculture" on [www.syngenta.com/ar2013](http://www.syngenta.com/ar2013)

To support the rapid growth in use of seed treatments, we are increasing the training of our sales teams who, in turn, train growers in safe use.

An important aspect of our training programs is the way we tailor our approach to suit local needs and practices. We have redesigned training, equipment and working practices to meet chemical industry, rather than agricultural industry standards. For example, we have been holding health and safety workshops for managers of our seed processing facilities worldwide, as well as the external facilities to which we supply chemicals. We operate 67 of these sites, which vary greatly in the size and sophistication of their equipment. Enabling them to identify and address their own health and safety issues has proved more effective than a one-size-fits-all solution.

Sometimes lack of caution in chemical handling or deliberate misuse, can lead to adverse health incidents. We have effective processes for managing and reporting incidents of suspected poisoning. In 2013, 100 countries representing 93 percent of our crop protection sales had programs in place. We also continue to work with the World Health Organization and International Association for Suicide Prevention on secure storage measures to prevent access by children and potential suicides.

## Our business enablers

### Economic value shared

In more than 90 countries worldwide, we are an integral part of local economies and communities. We aim to benefit them in a variety of ways.

#### Generating economic benefits

We help millions of farmers to improve their productivity, increase resource efficiency and earn a better living. Our products, training and support help them add value for their local economies and communities while improving food security for millions of people: that is the essence of our Good Growth Plan, outlined on pages 12 to 19.

We contribute to local economies in many ways: by paying taxes, employing locally, and sourcing goods and services locally where appropriate. The economic benefits from our operations are significant in many communities, and we are also committed to increasing our role as a community partner in other ways.



#### Water for crops and communities

Students from Australia and Indonesia, together with Syngenta employees, helped build a water pump system for irrigation in the province of Probolinggo, Indonesia. This was part of “Syngenta Connections” – a program that links together organizations, academic institutions and farmers in Asia Pacific to increase access to technology and agronomical knowledge.



More online:  
[www.syngenta.com/ar2013](http://www.syngenta.com/ar2013)

### Valuing our community contribution

Our Code of Conduct requires us to engage with and support local communities – listening to concerns, creating benefits, sharing value, protecting the environment, promoting health, and improving the quality of life. This helps us to earn community goodwill and consent for our business objectives.

It is difficult to put a cash value on this kind of support. We report a figure for “community investment”, calculated by totaling the value of cash, in-kind contributions and staff time spent on sponsorships, donations and community engagement programs. In 2013, we valued our total community investment at \$21 million (+11 percent). This is in addition to local employment and local sourcing.

#### Corporate community investment

\$m

2013	21
2012	19
2011	18

Our approach to community investment is highly localized – shaped by each community’s setting, demographics and needs. In the USA, for example, we work with local United Way volunteering groups and Hunger Walk fundraising. In India, we support programs to empower women and create business credit schemes for them. We work on clean water and youth education in Latin America, and on community health in Africa. The nature of our support also varies according to local cultures and needs – ranging from cash donations and sponsorships for local causes to direct engagement in development projects.

In the aftermath of the typhoon Haiyan in the Philippines, we initiated a global program together with the International Red Cross to assist with immediate relief. Under the program, Syngenta committed to match employee donations. In addition, our ASEAN team set aside funds to support employees and their families affected by the storm, and our local teams in the Philippines collected urgently needed supplies like food and clothing. For the longer term, we are exploring projects that support the rebuilding of agricultural areas and recovery of rural communities.



See detailed “Economic value shared” performance data on [page 64](#)



Read more about “Economic value shared” on [www.syngenta.com/ar2013](http://www.syngenta.com/ar2013)

## Business integrity

At Syngenta, business integrity is more than a compliance or risk management issue. We believe that doing the right thing is vital to being a sustainably successful business, and we are actively working to embed that view in our culture.

We comply with all local, national and international laws, codes and conventions, and uphold the principles set out in the Universal Declaration of Human Rights and the International Labor Organization's Core Conventions.

Our Code of Conduct sets out clear ethical, environmental and social responsibilities to which we expect all employees to adhere. And we have clear whistleblowing procedures that encourage employees to report any suspected breaches. We also monitor our suppliers' compliance with our standards and external regulations on issues such as health and safety, the environment, fair labor practices and animal welfare.

We have Compliance and Risk Management Committees in all territories, mirroring our global governance structure. These bring together leaders of the commercial organization, Human Resources, Finance, Legal and Taxes, Syngenta Business Services, Production and Supply, and Health, Safety and Environment, so that we can take a holistic view of compliance and risk. In 2013, we continued to refine the way they work, broadening their role from reviewing and monitoring to a more proactive stance.

### From policy-centered to values-driven

No formal system of rules and regulations can cover all eventualities. So we are fostering a culture in which ethical behavior governs all our dealings, whatever the circumstances. To support this, we must clearly communicate what we expect and give people the tools they need to be fully accountable.

We are evolving from reliance on a rules-based approach to one that is more based on values. While we continue to improve our policies, the focus now is on the standards we set for ourselves and our shared commitment to integrity and ethical leadership.

This involves helping our managers to become compliance leaders, building a culture where their people can discuss compliance matters naturally and openly. The emphasis is on face-to-face training – centered on real-life examples, rather than abstract rules and principles. We are teaching our leaders how to be clear about Syngenta's expectations, how to build "doing the right thing" into their language and communication, and how to encourage team members to voice any concerns they may have.

We have developed a set of tools to help managers build integrity and compliance into their teams' daily lives. And we are training people as ambassadors to spread awareness of what we expect from individual employees and their leaders.

### Enabling people to speak up

We encourage employees to speak up and report concerns through a variety of channels, including a confidential, global helpline. In 2013, we increased communication to raise awareness of our global helpline leading to 110 incidents being reported in 2013. All reported cases are treated seriously. They are logged, assessed and investigated, and corrective or disciplinary action is taken as appropriate. From 2014, the helpline will play a broader role – including offering compliance information and guidance on possible courses of action, enabling us to manage compliance reporting and support more effectively.

#### Compliance cases reported through the compliance helpline



### Consistent values, everywhere

Wherever we do business, we are working to embed the same values.

In developing our new production facilities, we make compliance thinking an integral part of the way we manage the project. Everyone involved, whether employed by Syngenta or by contractors, is given compliance training and certification, and is signed up to our compliance framework.

We are now drawing on this experience as we start to deliver on our commitment to build a \$1 billion business in Africa over the next decade. We have established a cross-functional Compliance and Risk Management Committee for the region to take a holistic view of our development. And compliance thinking has been embedded from the outset to ensure that we grow our African footprint in line with our values.



See detailed "Business integrity" performance data on **page 64**



Read more about "Business integrity" on [www.syngenta.com/ar2013](http://www.syngenta.com/ar2013)



## Biographies

## Board of Directors

at December 31, 2013

From left to right: Jacques Vincent, Eveline Saupper, Gunnar Brock, Eleni Gabre-Madhin, Michael Mack, Michel Demaré, Jürg Witmer, Vinita Bali, David Lawrence and Stefan Borgas at Syngenta's International Research Center at Jealott's Hill, UK.

**Michel Demaré**

**Chairman of the Board, non-executive Director. Chairman of the Chairman's & Governance Committee, the Corporate Responsibility Committee and the Nomination Committee. He is also Chairman of the Syngenta Foundation for Sustainable Agriculture**

**Born: 1956. Nationality: Belgian.**  
**Initial appointment: 2012.**

Michel Demaré was Chief Financial Officer and Executive Vice President of ABB from 2005 to February 2013, serving in addition, between late 2008 and March 2011, as the company's President of Global Markets. Between February and September 2008, he was ABB's acting Chief Executive Officer. Previously he had been Chief Financial Officer Europe for Baxter International Inc. He joined Baxter in 2002 after 18 years at the Dow Chemical Company, where he held various treasury and business Chief Financial Officer positions in Europe (including Switzerland) and the USA. He is Vice Chairman of the Board of UBS, Chairman of SwissHoldings and a member of the IMD Business School Supervisory Board in Lausanne.

Michel Demaré holds an MBA from the Katholieke Universiteit at Leuven.

**Jürg Witmer**

**Vice Chairman, non-executive Director. Chairman of the Compensation Committee, member of the Chairman's & Governance Committee and the Nomination Committee**

**Born: 1948. Nationality: Swiss.**  
**Initial appointment: 2006.**

Jürg Witmer is currently Chairman of the Givaudan Group and a Director of The Zuellig Group Hong Kong, The Gold Coin Group Singapore and A. Menarini IFR Florence (Italy). In 1978, he joined Hoffmann-La Roche in Basel and subsequently held a number of positions including Legal Counsel, Assistant to the CEO, General Manager and China Project Manager of Roche Far East based in Hong Kong, Head of Corporate Communications and Public Affairs at Roche headquarters in Basel, Switzerland, and General Manager of Roche Austria. From 1999 to 2005, he acted as Chief Executive Officer of the Givaudan Group in Vernier/Geneva and since then as Chairman of the Board. From 2008 to 2012, he was also Chairman of Clariant AG, Basel.

Jürg Witmer has a doctorate in Law from the University of Zurich, as well as a degree in International Studies from the Graduate Institute of the University of Geneva.

**Michael Mack**

**Chief Executive Officer (CEO), executive Director. Member of the Chairman's & Governance Committee and the Corporate Responsibility Committee**

**Born: 1960. Nationality: American.**  
**Initial appointment: 2008.**

Michael Mack was Chief Operating Officer of Seeds (2004–2007) and Head of Crop Protection, NAFTA Region (2002–2004) for Syngenta. Prior to this, he was President of the Global Paper Division of Imerys SA, a French mining and pigments concern, from the time of its merger in 1999 with English China Clays Ltd., where he was Executive Vice President, Americas and Pacific Region, in addition to being an Executive Director of the Board. From 1987 to 1996, he held various roles with Mead Corporation. Michael Mack was Chairman and President of the Board of the Swiss-American Chamber of Commerce from 2009 to 2012, and is currently a member of the Board.

Michael Mack has a degree in Economics from Kalamazoo College in Michigan, studied at the University of Strasbourg, and has an MBA from Harvard University.

**Vinita Bali**

**Non-executive Director. Member of the Corporate Responsibility Committee**

**Born: 1955. Nationality: Indian.**  
**Initial appointment: 2012.**

Vinita Bali has been Managing Director and Chief Executive Officer of Britannia Industries, India's public listed premier food company, since 2005. She also serves as a non-executive Director on the boards of Titan Industries, Piramal Glass, several Companies of The Wadia Group and GAIN (Global Alliance for Improved Nutrition). She started her career in India with the Tata Group, and then joined Cadbury India, subsequently working for Cadbury in the UK, Nigeria and South Africa. From 1994 onwards, she held a number of senior positions in marketing and general management at The Coca-Cola Company in the USA and Latin America, becoming Head of Corporate Strategy in 2001, and then joined the Zyman Group as Head of its Business Strategy practice in the USA in 2003.

Vinita Bali holds an MBA from The Jamnalal Bajaj Institute of Management Studies, University of Bombay and a Bachelor degree in Economics from the University of Delhi.

## Stefan Borgas

**Non-executive Director. Member of the Audit Committee**

**Born:** 1964. **Nationality:** German.  
**Initial appointment:** 2009.

Stefan Borgas has been President and Chief Executive Officer of Israel's ICL Group since September 2012. Prior to this he was CEO of Lonza Group from June 2004 to January 2012 after having spent 14 years with BASF Group where he held various leadership positions in Fine Chemicals and Engineering Plastics in the USA, Germany, Ireland and China. Stefan Borgas is also a member of the Board of the Swiss Management Gesellschaft (SMG).

Stefan Borgas holds a degree in Business Administration from the University of Saarbrücken and an MBA from the University of St. Gallen.

## Gunnar Brock

**Non-executive Director. Chairman of the Audit Committee and member of the Nomination Committee**

**Born:** 1950. **Nationality:** Swedish.  
**Initial appointment:** 2012.

Gunnar Brock is Chairman of Stora Enso, Mölnlycke Health Care and Rolling Optics and a member of the Board of Investor AB, Total SA and Stena AB. He worked for the Tetra Pak Group for many years, with spells in Asia, Australia and Europe, returning – after a period as President and Chief Executive Officer of Alfa Laval – to become President and Chief Executive Officer of the Tetra Pak Group, headquartered in Switzerland. From 2002 to 2009, he served as President and Chief Executive Officer of the Atlas Copco Group.

Gunnar Brock holds an MBA from the Stockholm School of Economics.

## Eleni Gabre-Madhin

**Non-executive Director. Member of the Corporate Responsibility Committee**

**Born:** 1964. **Nationality:** Swiss.  
**Initial appointment:** 2013.

Eleni Gabre-Madhin is the co-founder and CEO of eleni LLC, which supports the formation of commodity exchanges across Africa, helping to promote food security. She also founded and was CEO of the Ethiopia Commodity Exchange. Previously, she has been a Senior Program Leader for Strategy issues at the International Food Policy Research Institute in Addis Ababa and worked for several institutions, such as the World Bank in Washington (2003–2004).

Eleni Gabre-Madhin holds a BA in Economics from Cornell University, a Master of Science in Agricultural Economics from Michigan State University and a PhD in Applied Economics (Food Research Institute) from Stanford University. She received the Outstanding Dissertation Award from the American Agricultural Economics Association for her research on grain markets in Ethiopia.

## David Lawrence

**Non-executive Director. Member of the Audit Committee and Chairman of the Science and Technology Advisory Board**

**Born:** 1949. **Nationality:** British.  
**Initial appointment:** 2009.

David Lawrence was Head Research & Development at Syngenta from September 1, 2002, until the end of September, 2008. Prior to this role, David Lawrence was Head Research & Technology Projects (2000–2002) for Syngenta. Prior to this, he was Head International R&D Projects for Zeneca Agrochemicals, having previously held several senior scientific roles. He was a member of the UK Foresight Lead Expert Group on Food and Farming. Currently he is a member of the BBSRC Council, the UK Industrial Biotechnology Leadership Team and the UK Agri-tech Strategy Leadership Council. He is also a Board member for Rothamsted Research, Chairman of the UK Biosciences Knowledge Transfer Network Board, and a member of the World Economic Forum Biotechnology Council.

David Lawrence graduated in Chemistry from Oxford University with an MA and DPhil in Chemical Pharmacology.

## Eveline Saupper

**Non-executive Director. Member of the Compensation Committee**

**Born:** 1958. **Nationality:** Swiss.  
**Initial appointment:** 2013.

Eveline Saupper is a partner and Member of the Board of Directors of the commercial law firm Homburger AG in Zurich. She is also a member of the Board of Directors of Baloise Holding AG, Hostettler, Kramarsch & Partner Holding AG and Stäubli Holding AG. Before joining Homburger in 1985, she worked as a tax specialist with Peat Marwick Mitchell (today KPMG) in Zurich (1983–1985).

Eveline Saupper holds a degree and PhD in Law from the University of St. Gallen. She is admitted to the Bar of Zurich and is a certified tax expert.

## Jacques Vincent

**Non-executive Director. Member of the Compensation Committee**

**Born:** 1946. **Nationality:** French.  
**Initial appointment:** 2005.

Jacques Vincent was Vice Chairman and Chief Operating Officer of the Danone Group, Paris, from 1998 until 2008. In 2013, he has been sitting on the Board of Directors of Danone and Mediaperformance. He began his career with Danone in 1970 and has since held various financial and overall management positions within this Group.

Jacques Vincent is a graduate engineer of the Ecole Centrale, Paris. He holds a Bachelor in Economics from Paris University and a Master of Science from Stanford University.

## Biographies

## Executive Committee

at December 31, 2013

From left to right:  
Michael Mack, John  
Atkin, Robert Berendes,  
Caroline Luscombe,  
Christoph Mäder,  
Mark Peacock, Davor  
Pisk, John Ramsay,  
Jonathan Seabrook

**Michael Mack**

**Chief Executive Officer (CEO), executive Director.**  
**Member of the Chairman's & Governance Committee**  
**and the Corporate Responsibility Committee**

**Born:** 1960. **Nationality:** American.  
**Appointed:** 2008.

Michael Mack was Chief Operating Officer of Seeds (2004–2007) and Head of Crop Protection, NAFTA Region (2002–2004) for Syngenta. Prior to this, he was President of the Global Paper Division of Imerys SA, a French mining and pigments concern, from the time of its merger in 1999 with English China Clays Ltd., where he was Executive Vice President, Americas and Pacific Region, in addition to being an Executive Director of the Board. From 1987 to 1996, he held various roles with Mead Corporation. Michael Mack was Chairman and President of the Board of the Swiss-American Chamber of Commerce from 2009 to 2012, and is currently a member of the Board.

Michael Mack has a degree in Economics from Kalamazoo College in Michigan, studied at the University of Strasbourg, and has an MBA from Harvard University.

**John Atkin**

**Chief Operating Officer**

**Born:** 1953. **Nationality:** British.  
**Appointed:** 2000.

Prior to his current role as Chief Operating Officer Syngenta, John Atkin was Chief Operating Officer for Syngenta Crop Protection, from the foundation of the Company in 2000 until February 2011. Before that, he was Chief Executive Officer (1999–2000), Chief Operating Officer (1999), Head of Product Portfolio Management (1998), and Head of Insecticides and Patron for Asia (1997–1998) of Novartis Crop Protection. Prior to 1998, he was General Manager of Sandoz Agro France (1995–1997) and Head of Sandoz Agro Northern Europe (1993–1995). In 2008, he was appointed Visiting Professor at the Institute for Research on Environment and Sustainability (IRES) at the University of Newcastle upon Tyne. He was appointed as a non-executive Director of Driscoll's in 2011.

He graduated from the University of Newcastle upon Tyne with a PhD and a BSc degree in Agricultural Zoology.

**Robert Berendes**

**Head Business Development**

**Born:** 1965. **Nationality:** German.  
**Appointed:** 2007.

In addition to his responsibilities, Robert Berendes was ad interim Head Research & Development from October 2012 through December 2013. Patricia Malarkey will succeed him as Head Research & Development as of January 1, 2014. Robert Berendes will be leaving the Company on March 31, 2014.

Robert Berendes was Head of Diverse Field Crops (2005–2006) and Head of Strategy, Planning and M&A (2002–2005) for Syngenta. Prior to this, he was a partner and co-leader of the European chemical practice at McKinsey & Company.

He graduated from the University of Cologne with a diploma in Chemistry and has a PhD in Biophysics from the Max-Planck-Institute for Biochemistry/Technical University of Munich.

**Caroline Luscombe**

**Head Human Resources**

**Born:** 1960. **Nationality:** British.  
**Appointed:** 2012.

Caroline Luscombe joined Syngenta as Global Head of Human Resources in January 2010. Prior to this, she held several senior HR roles in the GE group, namely Head HR for GE Capital Global Banking (2009), HR Leader for GE Money and GE Money EMEA (2006–2008), HR Leader for GE Healthcare Bio-Sciences (2004–2006) and, before its acquisition by GE, Executive Vice President HR for Medical Diagnostics, Amersham plc (2001–2004). From 1997 to 2001, she worked in the chemical sector for Laporte plc and was promoted to Head of HR in 2000. She also held senior HR roles in Rhone-Poulenc Rorer (formerly Fisons plc, 1995–1996) and Tiphook plc (1989–1995). She started her career in finance at Arthur Young McClelland Moore and was UK controller and Compensation and Benefits manager for the strategy consultants Bain & Company (1983–1989).

She holds a Bachelor degree in German from University College, London.





### Christoph Mäder

#### Head Legal & Taxes and Company Secretary

**Born:** 1959. **Nationality:** Swiss.

**Appointed:** 2000.

Christoph Mäder was Head of Legal & Public Affairs for Novartis Crop Protection (1999–2000) and Senior Corporate Counsel for Novartis International AG (1992–1998). He is Chairman of scienceindustries, the association of Swiss chemical, pharmaceutical and biotech industries. He is also a Vice Chairman of economiesuisse, the main umbrella organization representing Swiss economy, and a member of the Executive Board of the Business and Industry Advisory Committee (BIAC) to the Organization for Economic Co-operation and Development (OECD).

He graduated from Basel University Law School, and is admitted to the Bar in Switzerland.

### Mark Peacock

#### Head Global Operations

**Born:** 1961. **Nationality:** British.

**Appointed:** 2007.

Mark Peacock was previously Head of Global Supply (2003–2006) and Regional Supply Manager for Asia Pacific (2000–2003) for Syngenta. Prior to this he was a Product Manager in Zeneca Agrochemicals and General Manager of the Electrophotography Business in Zeneca Specialties.

He has a degree in Chemical Engineering from Imperial College, London, and a Masters in International Management from McGill University in Montreal.

### Davor Pisk

#### Chief Operating Officer

**Born:** 1958. **Nationality:** British.

**Appointed:** 2008.

Prior to his current role as Chief Operating Officer Syngenta, Davor Pisk was Chief Operating Officer for Syngenta Seeds from 2008 to February 2011. Prior to that, he was Region Head Crop Protection Asia Pacific (2003–2007) for Syngenta and Region Head Asia for Zeneca Agrochemicals (1998–2001). Prior to 1998, he was head of Herbicides for Zeneca (1993–1997) and General Manager of ICI Czechoslovakia (1991–1993).

He has a BA in Economics and Politics from Exeter University and an MA in Political Science from the University of California, USA.

### John Ramsay

#### Chief Financial Officer

**Born:** 1957. **Nationality:** British.

**Appointed:** 2007.

John Ramsay was Group Financial Controller (2000–2007) for Syngenta. Prior to that, he was Zeneca Agrochemicals Finance Head Asia Pacific (1994–1999), Financial Controller ICI Malaysia (1990–1993), and ICI Plant Protection Regional Controller Latin America (1987–1990). Before joining ICI in 1984, he worked in Audit and Tax at KPMG.

He is a Chartered Accountant and also holds an honors degree in Accounting.

### Jonathan Seabrook

#### Head Corporate Affairs

**Born:** 1969. **Nationality:** British.

**Appointed:** 2013.

Prior to his current role Jonathan Seabrook was Head Investor Relations Syngenta (2003–2007). Before joining the Company, he held a number of positions in the pharmaceutical and financial services industries, including Glaxo, SmithKline Beecham, N.M. Rothschild & Sons and Bank of America, in both the UK and the USA.

He graduated from Exeter University, UK, with a degree in Ancient History and is a member of the Chartered Financial Analyst Society.

## Performance data

# Product line performance

## Crop Protection

### Selective herbicides

**Major brands:** AXIAL®, CALLISTO® family, DUAL MAGNUM®, BICEP II MAGNUM®, FUSILADE®MAX, TOPIK®

Corn herbicides grew strongly with the largest contribution coming from CALLISTO® in the USA driven by its success as part of weed resistance management offers. Also on corn, BICEP II MAGNUM® grew strongly in the CIS and France. AXIAL® for cereals continued to expand in Europe, with growth led by France, and maintained its momentum in North America.

### Non-selective herbicides

**Major brands:** GRAMOXONE®, TOUCHDOWN®

Growth was driven mainly by TOUCHDOWN®. Strong demand and shortage of supply helped drive significant volume and price gains. Brazil was the leading contributor with sales more than doubling. Sales of GRAMOXONE® were also higher with increased demand leading to double-digit growth in Asia Pacific and Brazil.

### Fungicides

**Major brands:** ALTO®, AMISTAR®, BRAVO®, ELATUS™, REVUS®, RIDOMIL GOLD®, SCORE®, SEGURIS®, TILT®, UNIX®

The main contribution to growth came from SEGURIS®, the new SDHI fungicide for cereals, for which sales almost tripled. Sales of AMISTAR® Technology grew by more than 20 percent in Asia Pacific with a new launch on rice in China and rapid adoption in the ASEAN countries; Canada also saw strong growth in the potato and cereals market. A decline in fourth quarter fungicide sales reflected a delayed registration in Brazil for the new product ELATUS™, based on the active ingredient Solatenol™.

### Insecticides

**Major brands:** ACTARA®, DURIVO®, FORCE®, KARATE®, PROCLAIM®, VERTIMEC®

Sales were driven by Asia Pacific and by Latin America, where growth accelerated in the fourth quarter with continued technology adoption and high insect pressure in Brazil. In the USA insect pressure was low, reducing sales of ACTARA®. Globally the largest contribution came from the new product DURIVO®, with sales up by over 40 percent and growth in all regions.

### Seedcare

**Major brands:** AVICTA®, CRUISER®, DIMDEND®, CELEST®/MAXIM®, VIBRANCE®

VIBRANCE®, based on the SDHI fungicide sedaxane, was successfully launched on several crops globally, with the most significant contributions coming from Canada and the USA. CRUISER® continued to see strong growth in demand in Latin America and Asia Pacific, more than offsetting a decline in Europe due to the EU suspension of neonicotinoid registrations.

## Seeds

### Corn and soybean

**Major brands:** AGRISURE®, GOLDEN HARVEST®, NK®

Reported sales declined due to the non-recurrence of milestone royalties for the 604 corn rootworm trait totaling \$256 million in the first half of 2012. Underlying sales were up 7 percent for the year. US sales were also affected by constrained supply following the exceptional drought in 2012. In corn, our leading traits continued to gain acceptance in Latin America. Non-GM hybrids drove growth in ASEAN, where sales were up by over 40 percent, and in the CIS. For soybean, lower US sales were offset by a sharp increase in Brazil, with acreage expansion and the introduction of our new variety for the key maturity group eight.

### Diverse field crops

**Major brands:** NK® oilseeds, HILLESÖG® sugar beet

An excellent performance by sunflower in the CIS and South East Europe reflected strong market recognition for Syngenta's leading hybrids as well as favorable spring crop conditions and continued intensification. The Sunfield acquisition contributed to sunflower sales in the fourth quarter. Sales of sugar beet were lower owing to general area reduction. In Asia Pacific sales of rice more than doubled mainly reflecting the acquisition of Devgen as well as the continued adoption of the TEGRA® program.

### Vegetables

**Major brands:** ROGERS®, S&G®

A gradual improvement in developed markets was accompanied by rapid growth in the emerging markets of Africa, Middle East and in Latin America, where our tomato portfolio was in particularly high demand.

## Crop Protection sales<sup>1</sup>

### Selective herbicides \$m

2013	3,051
2012	2,939
2011	2,617

### Non-selective herbicides \$m

2013	1,545
2012	1,246
2011	1,117

### Fungicides \$m

2013	3,035
2012	3,044
2011	2,998

### Insecticides \$m

2013	1,912
2012	1,841
2011	1,790

### Seedcare \$m

2013	1,228
2012	1,107
2011	1,018

## Seeds sales

### Corn and soybean \$m

2013	1,654
2012	1,836
2011	1,471

### Diverse field crops \$m

2013	842
2012	719
2011	676

### Vegetables \$m

2013	708
2012	682
2011	703

<sup>1</sup> Includes sales of Crop Protection products to Seeds and excludes non-product line sales



## Performance data

## Financial information

A summary of Syngenta's consolidated financial statements and other financial information are provided on pages 52 to 58. For full details and analysis of the Group's audited financial results, prepared in accordance with IFRS, please refer to our comprehensive Financial Report 2013, which is available on request or on our website [www.syngenta.com/ar2013](http://www.syngenta.com/ar2013)

References to EBITDA in the following financial information excludes the impact of restructuring, impairment and discontinued operations.<sup>1</sup>

## Summarized financial information 2013 and 2012

Year ended December 31 (\$m, except per share amounts)	Excluding restructuring and impairment <sup>1</sup>		Restructuring and impairment		As reported under IFRS	
	2013	2012 <sup>2</sup>	2013	2012 <sup>2</sup>	2013	2012 <sup>2</sup>
<b>Sales</b>	<b>14,688</b>	14,202	–	–	<b>14,688</b>	14,202
<b>Gross profit</b>	<b>6,702</b>	6,986	–	(7)	<b>6,702</b>	6,979
Marketing and distribution	(2,394)	(2,423)	–	–	(2,394)	(2,423)
Research and development	(1,376)	(1,257)	–	–	(1,376)	(1,257)
General and administrative	(667)	(785)	(179)	(258)	(846)	(1,043)
Operating income	2,265	2,521	(179)	(265)	2,086	2,256
<b>Income before taxes</b>	<b>2,113</b>	2,381	(179)	(265)	<b>1,934</b>	2,116
Income tax expense	(323)	(349)	38	83	(285)	(266)
<b>Net income</b>	<b>1,790</b>	2,032	(141)	(182)	<b>1,649</b>	1,850
Attributable to non-controlling interests	(5)	(3)	–	–	(5)	(3)
<b>Attributable to Syngenta AG shareholders:</b>	<b>1,785</b>	2,029	(141)	(182)	<b>1,644</b>	1,847
<b>Earnings/(loss) per share (\$)<sup>3</sup></b>						
Basic	19.41	22.14	(1.53)	(1.98)	17.88	20.16
Diluted	19.30	22.03	(1.52)	(1.98)	17.78	20.05

	2013	2012 <sup>2</sup>	2013 CER <sup>4</sup>
<b>Gross profit margin excluding restructuring and impairment</b>	<b>45.6%</b>	49.2%	<b>45.5%</b>
<b>EBITDA<sup>5</sup></b>	<b>2,895</b>	3,114	
<b>EBITDA margin</b>	<b>19.7%</b>	21.9%	<b>19.0%</b>
<b>Tax rate on results excluding restructuring and impairment</b>	<b>15%</b>	15%	
<b>Free cash flow<sup>6</sup></b>	<b>385</b>	270	
<b>Trade working capital to sales<sup>7</sup></b>	<b>35%</b>	32%	
<b>Debt/Equity gearing<sup>8</sup></b>	<b>24%</b>	19%	
<b>Net debt<sup>8</sup></b>	<b>2,265</b>	1,706	
<b>Cash flow return on investment<sup>9</sup></b>	<b>13%</b>	15%	

<sup>1</sup> For further discussion of restructuring and impairment charges, see page 58. Net income and earnings per share excluding restructuring and impairment are provided as additional information and not as an alternative to net income and earnings per share determined in accordance with IFRS

<sup>2</sup> After the effect of accounting policy change for employee benefits described in Note 2 to the Group Consolidated Financial Statements in the Financial Report 2013

<sup>3</sup> The weighted average number of ordinary shares in issue used to calculate the earnings per share were as follows: For 2013 basic EPS 91,952,222 and diluted 92,459,306; for 2012 basic EPS 91,644,190 and diluted 92,132,922

<sup>4</sup> For a description of CER, see page 58

<sup>5</sup> EBITDA is defined on page 58

<sup>6</sup> For a description of free cash flow, see page 58

<sup>7</sup> Period end trade working capital as a percentage of twelve-month sales

<sup>8</sup> For a description of net debt and the calculation of debt/equity gearing, see page 58

<sup>9</sup> For a description of the cash flow return on investment calculation, see page 58

## Full year sales

Year ended December 31	2013 (\$m)	2012 (\$m)	Actual %	CER %
<b>Group sales</b>				
Europe, Africa and Middle East	4,223	3,974	+6	+7
North America	3,848	3,931	-2	-2
Latin America	3,991	3,713	+7	+10
Asia Pacific	1,935	1,827	+6	+11
<b>Total integrated sales</b>	<b>13,997</b>	<b>13,445</b>	<b>+4</b>	<b>+6</b>
Lawn and Garden	691	757	-9	-7
<b>Group sales</b>	<b>14,688</b>	<b>14,202</b>	<b>+3</b>	<b>+5</b>

### Crop Protection by region

Europe, Africa and Middle East	3,033	2,910	+4	+5
North America	2,762	2,577	+7	+8
Latin America	3,499	3,261	+7	+9
Asia Pacific	1,629	1,570	+4	+9
<b>Total</b>	<b>10,923</b>	<b>10,318</b>	<b>+6</b>	<b>+8</b>

### Seeds by region

Europe, Africa and Middle East	1,232	1,101	+12	+12
North America	1,140	1,398	-18	-18
Latin America	521	479	+9	+16
Asia Pacific	311	259	+20	+25
<b>Total</b>	<b>3,204</b>	<b>3,237</b>	<b>-1</b>	<b>+1</b>

### Sales by business

Crop Protection	10,923	10,318	+6	+8
Seeds	3,204	3,237	-1	+1
<i>Elimination of Crop Protection sales to Seeds</i>	<i>(130)</i>	<i>(110)</i>	<i>n/a</i>	<i>n/a</i>
<b>Total integrated sales</b>	<b>13,997</b>	<b>13,445</b>	<b>+4</b>	<b>+6</b>
Lawn and Garden	691	757	-9	-7
<b>Group sales</b>	<b>14,688</b>	<b>14,202</b>	<b>+3</b>	<b>+5</b>

## Full year product line sales

Year ended December 31	2013 (\$m)	2012 (\$m)	Actual %	CER %
Selective herbicides	3,051	2,939	+4	+5
Non-selective herbicides	1,545	1,246	+24	+26
Fungicides	3,035	3,044	-	+1
Insecticides	1,912	1,841	+4	+7
Seedcare	1,228	1,107	+11	+12
Other crop protection	152	141	+8	+9
<b>Total Crop Protection</b>	<b>10,923</b>	<b>10,318</b>	<b>+6</b>	<b>+8</b>
Corn and soybean	1,654	1,836	-10	-8
Diverse field crops	842	719	+17	+18
Vegetables	708	682	+4	+5
<b>Total Seeds</b>	<b>3,204</b>	<b>3,237</b>	<b>-1</b>	<b>+1</b>
<i>Elimination of Crop Protection sales to Seeds</i>	<i>(130)</i>	<i>(110)</i>	<i>n/a</i>	<i>n/a</i>
Lawn and Garden	691	757	-9	-7
<b>Group sales</b>	<b>14,688</b>	<b>14,202</b>	<b>+3</b>	<b>+5</b>

## Performance data

Financial information continued

## Condensed consolidated income statement

Year ended December 31 (\$m, except share and per share amounts)	2013	2012 <sup>1</sup>
<b>Sales</b>	<b>14,688</b>	14,202
Cost of goods sold	(7,986)	(7,223)
<b>Gross profit</b>	<b>6,702</b>	6,979
Marketing and distribution	(2,394)	(2,423)
Research and development	(1,376)	(1,257)
General and administrative:		
Restructuring	(179)	(258)
Other general and administrative	(667)	(785)
<b>Operating income</b>	<b>2,086</b>	2,256
Income from associates and joint ventures	48	7
Financial expense, net	(200)	(147)
<b>Income before taxes</b>	<b>1,934</b>	2,116
Income tax expense	(285)	(266)
<b>Net income</b>	<b>1,649</b>	1,850
Attributable to:		
Syngenta AG shareholders	1,644	1,847
Non-controlling interests	5	3
<b>Net income</b>	<b>1,649</b>	1,850
<b>Earnings per share (\$):</b>		
Basic	17.88	20.16
Diluted	17.78	20.05
<b>Weighted average number of shares:</b>		
Basic	91,952,222	91,644,190
Diluted	92,459,306	92,132,922

<sup>1</sup> After effect of accounting policy change for employee benefits described in Note 2 to the Group Consolidated Financial Statements in the Financial Report 2013

All activities were in respect of continuing operations.

## Restructuring and impairment before taxes

Year ended December 31 (\$m)	2013	2012
Operational efficiency programs:		
Cash costs	33	55
Non-cash impairment costs	6	2
Integrated crop strategy programs:		
Cash costs	60	102
Acquisitions and divestments:		
Cash costs	30	18
Non-cash items		
Reversal of inventory step-ups	–	7
Reacquired rights	11	14
Divestment losses	4	25
Other non-cash restructuring and impairment:		
Non-current asset impairments	35	42
<b>Total restructuring and impairment before taxes<sup>1</sup></b>	<b>179</b>	265

<sup>1</sup> \$nil (2012: \$7 million) is included within Cost of goods sold



## Condensed consolidated balance sheet

At December 31 (\$m)

	2013	2012 <sup>1</sup>
<b>Assets</b>		
<b>Current assets:</b>		
Cash and cash equivalents	902	1,599
Trade receivables	3,445	3,191
Other accounts receivable	979	932
Inventories	5,576	4,734
Derivative and other financial assets	195	251
Other current assets	249	257
<b>Total current assets</b>	<b>11,346</b>	<b>10,964</b>
<b>Non-current assets:</b>		
Property, plant and equipment	3,506	3,193
Intangible assets	3,381	3,501
Deferred tax assets	960	1,075
Financial and other non-current assets	819	562
Associates and joint ventures	204	143
<b>Total non-current assets</b>	<b>8,870</b>	<b>8,474</b>
<b>Total assets</b>	<b>20,216</b>	<b>19,438</b>
<b>Liabilities and equity</b>		
<b>Current liabilities:</b>		
Trade accounts payable	(3,817)	(3,409)
Current financial debt and other financial liabilities	(1,591)	(1,048)
Income taxes payable	(687)	(574)
Other current liabilities	(973)	(1,160)
Provisions	(288)	(236)
<b>Total current liabilities</b>	<b>(7,356)</b>	<b>(6,427)</b>
<b>Non-current liabilities:</b>		
Financial debt and other non-current liabilities	(1,796)	(2,514)
Deferred tax liabilities	(794)	(871)
Provisions	(766)	(841)
<b>Total non-current liabilities</b>	<b>(3,356)</b>	<b>(4,226)</b>
<b>Total liabilities</b>	<b>(10,712)</b>	<b>(10,653)</b>
<b>Equity:</b>		
Shareholders' equity	(9,491)	(8,774)
Non-controlling interests	(13)	(11)
<b>Total equity</b>	<b>(9,504)</b>	<b>(8,785)</b>
<b>Total liabilities and equity</b>	<b>(20,216)</b>	<b>(19,438)</b>

<sup>1</sup> After the effect of accounting policy change for employee benefits described in Note 2 to the Group Consolidated Financial Statements in the Financial Report 2013

## Performance data

Financial information continued

## Condensed consolidated cash flow statement

For the year ended December 31 (\$m)

	2013	2012 <sup>1</sup>
<b>Income before taxes</b>	<b>1,934</b>	<b>2,116</b>
Reversal of non-cash items	910	1,020
<b>Cash (paid)/received in respect of:</b>		
Interest and other financial receipts	216	197
Interest and other financial payments	(434)	(422)
Income taxes	(292)	(378)
Restructuring costs	(37)	(55)
Contributions to pension plans, excluding restructuring costs	(128)	(78)
Other provisions	(71)	(182)
<b>Cash flow before change in net working capital</b>	<b>2,098</b>	<b>2,218</b>
<b>Change in net working capital:</b>		
Change in inventories	(884)	(555)
Change in trade and other working capital assets	(365)	(814)
Change in trade and other working capital liabilities	365	510
<b>Cash flow from operating activities</b>	<b>1,214</b>	<b>1,359</b>
Additions to property, plant and equipment	(625)	(508)
Proceeds from disposals of property, plant and equipment	24	30
Purchases of intangible assets	(75)	(112)
Purchases of investments in associates and other financial assets	(27)	(59)
Proceeds from disposals of intangible and financial assets	14	21
Cash flow from (purchases)/disposals of marketable securities, net	7	(8)
Acquisitions and divestments, net	(90)	(582)
<b>Cash flow used for investing activities</b>	<b>(772)</b>	<b>(1,218)</b>
Increases in third party interest-bearing debt	714	1,256
Repayments of third party interest-bearing debt	(775)	(721)
(Purchases)/sales of treasury shares and options over own shares, net	(93)	24
Acquisition of non-controlling interests in subsidiaries	(39)	–
Distributions paid to shareholders	(921)	(791)
<b>Cash flow used for financing activities</b>	<b>(1,114)</b>	<b>(232)</b>
Net effect of currency translation on cash and cash equivalents	(25)	24
<b>Net change in cash and cash equivalents</b>	<b>(697)</b>	<b>(67)</b>
Cash and cash equivalents at the beginning of the year	1,599	1,666
<b>Cash and cash equivalents at the end of the year</b>	<b>902</b>	<b>1,599</b>

1 After the effect of accounting policy change for employee benefits described in Note 2 to the Group Consolidated Financial Statements in the Financial Report 2013

## Free cash flow

For the year ended December 31 (\$m)

	2013	2012
Cash flow from operating activities	1,214	1,359
Cash flow used for investing activities	(772)	(1,218)
Cash flow (from)/used for marketable securities	(7)	8
Cash flow used for acquisitions of non-controlling interests	(39)	–
Cash flow (from)/used for foreign exchange movements and settlement of hedges of inter-company loans	(11)	121
<b>Free cash flow</b>	<b>385</b>	<b>270</b>

## Full year segmental results excluding restructuring and impairment

2013 (\$m)	Europe, Africa, Middle East	North America	Latin America	Asia Pacific	Non- regional	Total integrated	Lawn and Garden	Total Group
Sales	4,223	3,848	3,991	1,935	–	13,997	691	14,688
Cost of goods sold	(1,958)	(2,169)	(2,290)	(1,041)	(215)	(7,673)	(313)	(7,986)
<b>Gross profit</b>	<b>2,265</b>	<b>1,679</b>	<b>1,701</b>	<b>894</b>	<b>(215)</b>	<b>6,324</b>	<b>378</b>	<b>6,702</b>
Marketing and distribution	(676)	(544)	(594)	(300)	(104)	(2,218)	(176)	(2,394)
Research and development	–	–	–	–	(1,320)	(1,320)	(56)	(1,376)
General and administrative	(141)	(61)	(87)	(54)	(297)	(640)	(27)	(667)
<b>Operating income/(loss)</b>	<b>1,448</b>	<b>1,074</b>	<b>1,020</b>	<b>540</b>	<b>(1,936)</b>	<b>2,146</b>	<b>119</b>	<b>2,265</b>

2012 <sup>1</sup> (\$m)	Europe, Africa, Middle East	North America	Latin America	Asia Pacific	Non- regional	Total integrated	Lawn and Garden	Total Group
Sales	3,974	3,931	3,713	1,827	–	13,445	757	14,202
Cost of goods sold	(1,859)	(1,805)	(2,057)	(973)	(154)	(6,848)	(368)	(7,216)
<b>Gross profit</b>	<b>2,115</b>	<b>2,126</b>	<b>1,656</b>	<b>854</b>	<b>(154)</b>	<b>6,597</b>	<b>389</b>	<b>6,986</b>
Marketing and distribution	(664)	(607)	(546)	(303)	(95)	(2,215)	(208)	(2,423)
Research and development	–	–	–	–	(1,199)	(1,199)	(58)	(1,257)
General and administrative	(146)	(153)	(103)	(46)	(291)	(739)	(46)	(785)
<b>Operating income/(loss)</b>	<b>1,305</b>	<b>1,366</b>	<b>1,007</b>	<b>505</b>	<b>(1,739)</b>	<b>2,444</b>	<b>77</b>	<b>2,521</b>

<sup>1</sup> After effect of accounting policy change for employee benefits described in Note 2 to the Group Consolidated Financial Statements in the Financial Report 2013

## Segmental operating income reconciled to segmental results excluding restructuring and impairment

2013 (\$m)	Europe, Africa, Middle East	North America	Latin America	Asia Pacific	Non- regional	Total integrated	Lawn and Garden	Total Group
<b>Operating income/(loss)</b>	<b>1,430</b>	<b>1,047</b>	<b>1,015</b>	<b>534</b>	<b>(2,037)</b>	<b>1,989</b>	<b>97</b>	<b>2,086</b>
Restructuring and impairment	18	27	5	6	101	157	22	179
<b>Operating income excluding restructuring and impairment</b>	<b>1,448</b>	<b>1,074</b>	<b>1,020</b>	<b>540</b>	<b>(1,936)</b>	<b>2,146</b>	<b>119</b>	<b>2,265</b>
<b>Operating margin (%)</b>	<b>34.3</b>	<b>27.9</b>	<b>25.6</b>	<b>27.9</b>	<b>n/a</b>	<b>15.3</b>	<b>17.2</b>	<b>15.4</b>

2012 <sup>1</sup> (\$m)	Europe, Africa, Middle East	North America	Latin America	Asia Pacific	Non- regional	Total integrated	Lawn and Garden	Total Group
<b>Operating income/(loss)</b>	<b>1,275</b>	<b>1,337</b>	<b>970</b>	<b>493</b>	<b>(1,858)</b>	<b>2,217</b>	<b>39</b>	<b>2,256</b>
Restructuring and impairment:								
Cost of goods sold <sup>2</sup>	5	2	–	–	–	7	–	7
Expenses	25	27	37	12	119	220	38	258
<b>Operating income excluding restructuring and impairment</b>	<b>1,305</b>	<b>1,366</b>	<b>1,007</b>	<b>505</b>	<b>(1,739)</b>	<b>2,444</b>	<b>77</b>	<b>2,521</b>
<b>Operating margin (%)</b>	<b>32.8</b>	<b>34.8</b>	<b>27.1</b>	<b>27.6</b>	<b>n/a</b>	<b>18.2</b>	<b>10.1</b>	<b>17.7</b>

<sup>1</sup> After effect of accounting policy change for employee benefits described in Note 2 to the Group Consolidated Financial Statements in the Financial Report 2013

<sup>2</sup> Reversal of inventory step-up



## Performance data

### Financial information continued

#### Constant exchange rates (CER)

Results in this report from one period to another period are, where appropriate, compared using constant exchange rates (CER). To present that information, current period results for entities reporting in currencies other than US dollars are converted into US dollars at the prior period's exchange rates, rather than at the exchange rates for the current year.

CER margin percentages for gross profit and EBITDA are calculated by the ratio of these measures to sales after restating the measures and sales at prior period exchange rates. The CER presentation indicates the underlying business performance before taking into account currency exchange fluctuations.

#### EBITDA

EBITDA is defined as earnings before interest, tax, non-controlling interests, depreciation, amortization, restructuring and impairment. Information concerning EBITDA has been included as it is used by management and by investors as a supplementary measure of operating performance. Management excludes restructuring from EBITDA in order to focus on results excluding items affecting comparability from one period to the next. EBITDA is not a measure of cash liquidity or financial performance under generally accepted accounting principles and the EBITDA measures used by Syngenta may not be comparable to other similarly titled measures of other companies. EBITDA should not be construed as an alternative to operating income or cash flow as determined in accordance with generally accepted accounting principles.

#### Restructuring and impairment before taxes

Restructuring represents the effect on reported performance of initiating and enabling business changes that are considered major and that, in the opinion of management, will have a material effect on the nature and focus of Syngenta's operations, and therefore require separate disclosure to provide a more thorough understanding of business performance. Restructuring includes the incremental costs of closing, restructuring or relocating existing operations, and gains or losses from related asset disposals. Restructuring also includes the effects of completing and integrating significant business combinations and divestments, including related transaction costs, gains and losses. Recurring costs of normal business operations and routine asset disposal gains and losses are excluded.

Impairment includes impairment losses associated with major restructuring as well as impairment losses and reversals of impairment losses resulting from major changes in the markets in which a reported segment operates.

The incidence of these business changes may be periodic and the effect on reported performance of initiating them will vary from period to period. Because each such business change is different in nature and

scope, there will be little continuity in the detailed composition and size of the reported amounts, which affect performance in successive periods. Separate disclosure of these amounts facilitates the understanding of performance including and excluding items affecting comparability. Syngenta's definition of restructuring and impairment may not be comparable to similarly titled line items in financial statements of other companies.

#### Free cash flow

Free cash flow comprises cash flow from operating and investing activities: excluding investments in and proceeds from marketable securities, which are included in investing activities; excluding cash flows from and used for foreign exchange movements and settlement of related hedges on inter-company loans, which are included in operating activities; and including cash flows from acquisitions of non-controlling interests, which are included in financing activities.

Free cash flow is not a measure of financial performance under generally accepted accounting principles and the free cash flow measure used by Syngenta may not be identical to similarly titled measures of other companies. Free cash flow has been included as it is used by many investors as a useful supplementary measure of cash generation.

#### Net debt reconciliation

Net debt comprises total debt net of related hedging derivatives, cash and cash equivalents and marketable securities. Net debt is not a measure of financial position under generally accepted accounting principles and the net debt measure used by Syngenta may not be comparable to the similarly titled measure of other companies. Net debt has been included as it is used by many investors as a useful measure of financial position and risk. The following table presents the derivation of the debt/equity gearing ratio:

(\$m)	2013	2012 <sup>1</sup>
Net debt	2,265	1,706
Shareholders' equity	9,491	8,774
<b>Debt/Equity gearing ratio</b>	<b>24%</b>	19%

#### Cash flow return on investment

Cash flow return on investment is a measure used by Syngenta to compare cash returns to average invested capital. Gross cash flow used in the calculation comprises cash flow before change in net working capital, excluding interest and other financial receipts and payments. Invested capital comprises: total current assets, excluding cash and derivative and other financial assets; total non-current assets, excluding non-current derivative and other financial assets and defined benefit pension assets, and adjusted to reflect the gross book values of property, plant and equipment and intangible assets; total current liabilities, excluding current financial debt and other financial liabilities; and deferred tax liabilities.

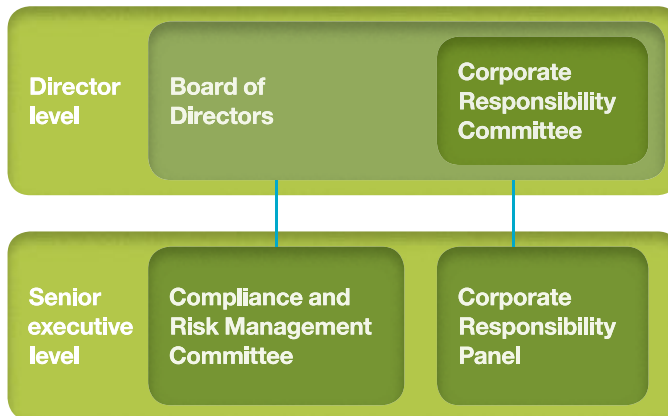
<sup>1</sup> After the effect of accounting policy change for employee benefits described in Note 2 to the Group Consolidated Financial Statements in the Financial Report 2013

# Corporate Responsibility information

Corporate Responsibility (CR) is integral to our business. Our ambition is to bring greater food security in an environmentally sustainable way to an increasingly populous world by creating a worldwide step-change in farm productivity. In The Good Growth Plan, we have set specific, ambitious and measurable targets, which focus on boosting resource efficiency, rejuvenating ecosystems and strengthening rural communities. We are also committed to reduce our environmental footprint, develop our people and enhance our social engagement throughout our operations. Syngenta is guided by the conviction that short-, medium- and long-term value creation depends on the successful integration of business, social and environmental performance.

## Corporate Responsibility governance

Our Board-level Corporate Responsibility Committee (CRC), chaired by the Syngenta Chairman, acts as the custodian on all CR matters for Syngenta. At senior executive level, the Corporate Responsibility Panel (CRP) directs CR-related standards, strategy, objectives and partnerships, and the Compliance and Risk Management Committee (CRMC) reviews and advises on CR reporting and the effectiveness of implementation of internal policies.



## Materiality and stakeholder engagement

We regularly assess stakeholder concerns and expectations and the issues that we believe present the greatest risks and opportunities for our business. We use the results to drive our strategy, determine allocation of resources and guide our communication.

We engage and collect feedback from stakeholders in a variety of ways. We hear from the grower community through satisfaction surveys and farmers' direct contact with our sales teams on the ground. We also engage directly with our employees and locally with the communities close to our operations.

Our interaction with industry associations, non-governmental organizations, governments and the investor community enables us to gather feedback on our activities and monitor issues important to stakeholders.

In July 2013, we also commissioned a global research study involving over 7,500 people in 13 countries to assess their perceptions on the topic of food security and the challenges of agriculture. The Agricultural Disconnect study concluded that producing more food for a growing population in an environmentally sustainable way will be one of the next decade's most important global challenges. However, there are conflicting opinions about how to address this challenge and about the impact of increased production on farmers, rural communities and the environment.

In particular, our stakeholders find important how our technologies and products will enable growers to deliver sustainably the quality and quantity of food needed by an increasing global population. Maintaining soil fertility, using water efficiently and conserving biodiversity are priorities. Other important issues for us and our stakeholders are business integrity, labor rights, responsible supply chain, environmental efficiency, health and safety, talent attraction and retention, and community engagement.

## Corporate Responsibility reporting

Syngenta's CR performance is covered throughout this Annual Review, summarized in the CR performance summary on pages 60–64 and explained in further detail in the extended Online Annual Report.

CR performance data is presented in six categories that align with our business enablers: people, manufacturing and procurement, environment, responsible agriculture, economic value shared and business integrity. Our CR reporting is for the operations of Syngenta Group, including material interactions with selected third parties as reported in the CR performance summary. Our CR reporting is guided by the GRI principles and externally assured by PwC. The CR reporting period is October 1 to September 30, with the exceptions noted.

To report our progress towards the goals set out in The Good Growth Plan, we anticipate revising the current CR reporting structure and publishing additional performance indicators next year.



More online:  
[www.syngenta.com/ar2013](http://www.syngenta.com/ar2013)  
[www.cr.syngenta.com](http://www.cr.syngenta.com)  
[www.goodgrowthplan.com](http://www.goodgrowthplan.com)  
[www.questions.syngenta.com](http://www.questions.syngenta.com)

**Performance data**

Corporate Responsibility information continued

**Corporate Responsibility performance summary****People**

	2013	2012	2011
<b>People retention<sup>1</sup></b>			
Employees <sup>2</sup>	28,149	27,262	26,333
Europe, Africa and Middle East <sup>3</sup>	12,763	12,417	12,134
North America	4,654	4,598	4,713
Latin America	5,221	5,095	4,681
Asia Pacific	5,511	5,152	4,805
Part-time employees	976	975	881
Turnover rate <sup>4</sup>	14.1%	12.4%	11.6%
of which: <35 years	43%	44%	38%
35-50 years	35%	35%	39%
>50 years	22%	21%	23%
<b>Diversity<sup>1</sup></b>			
Female employees	30%	31%	32%
In management roles	20%	20%	21%
In senior management	13%	13%	12%
Senior managers	366	334	345
Headquarters	47%	50%	49%
Europe, Africa and Middle East	13%	13%	13%
North America	18%	19%	19%
Latin America	12%	10%	10%
Asia Pacific	10%	8%	9%
Nationalities in senior management	41	38	34
<b>Employee development<sup>1, 5</sup></b>			
Training investment (\$m)	27.1	24.6	23.7
Training investment per employee (\$) <sup>2</sup>	964	901	901
<b>Reward and recognition<sup>1</sup></b>			
Employees eligible to participate in Employee Share Purchase Plan (ESPP)	18,790	16,561	16,872
Eligible employees participating in ESPP	47%	46%	46%
Employees participating in long-term equity incentive plans	1,226	1,098	1,047

1 In 2013 and 2012, reporting year ended September 30. In 2011, reporting year ended December 31

2 Permanent full-time equivalent (FTE)

3 Including headquarters (Switzerland)

4 Including voluntary leavers, retirees and restructuring

5 Includes only training delivered by external providers



## People continued

	2013	2012	2011
<b>Health, safety and wellbeing</b>			
Recordable injury and illness rate (IIR) per 200,000 hours <sup>1</sup>	0.41	0.39	0.44
Recordable injury rate per 200,000 hours <sup>1</sup>	0.35	0.35	0.39
Europe, Africa and Middle East <sup>2</sup>	0.38	0.39	0.38
North America	0.64	0.87	0.99
Latin America	0.38	0.17	0.20
Asia Pacific	0.15	0.16	0.17
Recordable occupational illness rate per 200,000 hours <sup>1</sup>	0.07	0.03	0.05
Europe, Africa and Middle East <sup>2</sup>	0.07	0.07	0.05
North America	0.14	0.00	0.16
Latin America	0.08	0.00	0.00
Asia Pacific	0.02	0.03	0.01
First aid cases	623	693	798
Recordable injuries	148	144	147
Fracture	16%	17%	14%
Bruise, strain and sprain	44%	30%	34%
Burn	2%	1%	3%
Cut and abrasion	22%	30%	28%
Eye injury	5%	6%	7%
Head injury and concussion	1%	3%	3%
Other	10%	13%	11%
Cases of recordable occupational illness	28	14	19
Cases of work-related stress <sup>3</sup>	36	127	32

<sup>1</sup> According to US OSHA definition for injuries and illness

<sup>2</sup> Including headquarters (Switzerland)

<sup>3</sup> The increase in 2012 is due in most cases to a change in shift pattern at our Monthey site in Switzerland. Following extensive consultation, a new shift pattern was implemented early in 2013



Read more about "People" on  
[www.syngenta.com/ar2013](http://www.syngenta.com/ar2013)

## Manufacturing and procurement

	2013	2012	2011
<b>Our production and R&amp;D sites<sup>1, 2</sup></b>			
Active ingredient production	8	8	
Formulation, fill and packaging	23	23	
Lawn and Garden supply chain	15	15	
Seed processing	67	62	
Research and development	139	154	
<b>Quality management<sup>1, 3</sup></b>			
Quality audits performed on own sites	83	91	
Quality audits performed on third parties <sup>4</sup>	496	89	
<b>Security management<sup>1</sup></b>			
Evaluated sites in medium and high risk countries	70	72	
Of which: production sites	44%	39%	
<b>Responsible supply chain<sup>5</sup></b>			
Seed supply farms included in Syngenta/FLA program	22,895	17,625	16,880
HSEQ assessments at chemical suppliers <sup>6</sup>	86	74	67
HSEQ assessments at formulation, fill and packaging suppliers	38	35	30
HSEQ assessments at warehouse/logistics service providers	157	115	129

<sup>1</sup> 2012 first year of reporting

<sup>2</sup> Including 34 multi-functional sites in 2013 and 35 in 2012

<sup>3</sup> In 2013, reporting year ended September 30. In 2012, reporting year ended December 31

<sup>4</sup> 411 audits occurred in 2013 in North America due to the wider introduction of a trait technology

<sup>5</sup> In 2013 and 2012, reporting year ended September 30. In 2011, reporting year ended December 31

<sup>6</sup> 2012 and 2011 values have been restated to separately report HSEQ assessments at formulation, fill and packaging suppliers



Read more about "Manufacturing and procurement" on  
[www.syngenta.com/ar2013](http://www.syngenta.com/ar2013)

## Performance data

## Corporate Responsibility information continued

## Environment

	2013	2012	2011
<b>Energy</b>			
<b>Energy intensity (MJ/\$EBIT)<sup>1</sup></b>	<b>4.50</b>	<b>3.70</b>	<b>3.79</b>
Energy (TJ)	10,202	9,336	8,707
Gas (TJ)	4,050	3,936	3,655
Electricity (TJ)	2,459	2,347	2,155
Steam (TJ)	1,578	1,419	1,438
Oil (TJ)	975	703	660
Other (TJ)	1,140	931	799
Sites setting energy targets	15	19	19
<b>Greenhouse gases</b>			
<b>Total CO<sub>2</sub>e emissions intensity (kg/\$EBIT)<sup>1</sup></b>	<b>0.75</b>	<b>0.62</b>	<b>0.61</b>
Total CO <sub>2</sub> e emissions (000s tonnes) <sup>2</sup>	1,710	1,574	1,396
Within direct control:			
CO <sub>2</sub> e emissions from own operations (000s tonnes)	634	665	513
CO <sub>2</sub> emissions from company vehicles (000s tonnes)	76	68	65
Within indirect control:			
CO <sub>2</sub> e emissions from purchased energy (000s tonnes)	417	391	374
CO <sub>2</sub> emissions from business trips (000s tonnes)	40	45	51
CO <sub>2</sub> emissions from distribution (000s tonnes) <sup>2,3</sup>	543	405	393
<b>Other air emissions</b>			
<b>Other air emissions intensity (g/\$EBIT)<sup>1</sup></b>	<b>0.67</b>	<b>0.56</b>	<b>0.63</b>
Other air emissions (tonnes) <sup>4</sup>	1,514	1,421	1,454
NO <sub>x</sub> (tonnes)	440	476	445
Non-halogenated VOCs (tonnes)	427	505	647
Halogenated VOCs (tonnes)	21	13	29
Particulates (tonnes)	105	108	114
SO <sub>2</sub> (tonnes) <sup>4,5</sup>	494	295	180
NH <sub>3</sub> (tonnes)	8	8	22
HCl (tonnes)	19	16	17
<b>Water</b>			
<b>Water usage intensity (liters/\$EBIT)<sup>1</sup></b>	<b>16.2</b>	<b>13.4</b>	<b>13.4</b>
Water usage (million cubic meters)	36.8	33.8	30.8
Cooling (million cubic meters)	19.4	18.0	18.7
Irrigation (million cubic meters) <sup>6</sup>	7.6	6.5	2.9
Processing and washing (million cubic meters)	7.4	7.0	7.0
Product ingredient (million cubic meters)	0.3	0.2	0.2
Sewage and sanitary (million cubic meters)	1.1	1.0	1.0
Other (million cubic meters)	1.0	1.1	1.0
Origin of water:			
Surface fresh water (million cubic meters)	25.6	23.9	22.4
Underground water (million cubic meters)	7.8	7.1	5.9
Drinking water from municipal network (million cubic meters)	3.0	2.7	2.6
Recovered rain water (million cubic meters)	0.1	0.1	0.1
Saline water (million cubic meters)	0.3	0.0	0.0

<sup>1</sup> 2012 and 2011 intensity values have been restated due to the impact on \$EBIT of the accounting policy change for employee benefits described in Note 2 to the Group Consolidated Financial Statements in the Financial Report 2013. \$EBIT excluding restructuring and impairment

<sup>2</sup> 2012 value has been restated due to a calculation error in CO<sub>2</sub> reporting from distribution

<sup>3</sup> Increase in 2013 value due to inclusion of seeds distribution in Asia Pacific and Latin America

<sup>4</sup> 2012 value has been restated due to a calculation error in SO<sub>2</sub> reporting at a site in Asia Pacific

<sup>5</sup> Increase in 2013 value due to 34% increase in fuel oil consumption in the waste incinerator at a site in Asia Pacific

<sup>6</sup> Policy on water reporting was revised: 10 reporting sites were added in 2013 and 12 in 2012

## Environment continued

	2013	2012	2011
<b>Wastewater effluents</b>			
<b>Industrial wastewater discharge intensity (liters/\$EBIT)<sup>1</sup></b>	<b>4.8</b>	<b>4.0</b>	<b>4.2</b>
Industrial wastewater discharge (million cubic meters)	10.8	10.1	9.6
Total organic carbon (TOC) (tonnes)	879	771	1,033
Chemical oxygen demand (COD) (tonnes)	2,679	2,337	3,119
Biological oxygen demand (BOD) (tonnes)	225	239	308
Total suspended solids (tonnes)	345	363	520
Soluble salts discharged (000s tonnes)	143	133	120
Direct discharge of uncontaminated cooling water (million cubic meters)	19.1	17.8	18.5
<b>Waste</b>			
<b>Hazardous waste intensity (kg/\$EBIT)<sup>1</sup></b>	<b>0.10</b>	<b>0.08</b>	<b>0.09</b>
Hazardous waste (000s tonnes)	235.2	190.0	201.4
Recycled and re-used (000s tonnes)	71.9	60.0	66.9
Incinerated (000s tonnes)	147.8	118.0	121.5
Landfill (000s tonnes)	2.5	1.0	0.4
Other (000s tonnes)	13.0	11.0	12.6
Hazardous waste by type:			
Chemical	66%	65%	59%
Solvents	27%	26%	29%
Other	7%	9%	12%
<b>Non-hazardous waste intensity (kg/\$EBIT)<sup>1</sup></b>	<b>0.06</b>	<b>0.04</b>	<b>0.04</b>
Non-hazardous waste (000s tonnes)	131.7	109.8	94.5
Recycled and re-used (000s tonnes)	100.5	80.0	64.3
Incinerated (000s tonnes)	7.5	4.1	7.1
Landfill (000s tonnes)	16.8	18.5	19.1
Other (000s tonnes)	6.9	7.2	4.0
Non-hazardous waste by type:			
Plant and seed waste from seed sites	66%	60%	56%
Inerts	3%	5%	5%
Packaging materials	7%	7%	9%
Household	5%	5%	5%
Other	19%	23%	25%
Sites with waste reduction programs	14	16	16
<b>Environmental compliance</b>			
Significant unplanned releases <sup>2, 3</sup>	1	0	0

<sup>1</sup> 2012 and 2011 intensity values have been restated due to the impact on \$EBIT of the accounting policy change for employee benefits described in Note 2 to the Group Consolidated Financial Statements in the Financial Report 2013. \$EBIT excluding restructuring and impairment

<sup>2</sup> Releases that escape beyond the site boundary and cause either environmental impact and/or concern from neighbors, regulators, etc

<sup>3</sup> In 2013, release of ammonia due to temporary reduction on scrubber efficiency at one site in North America. Corrective actions were immediately taken



Read more about "Environment" on  
[www.syngenta.com/ar2013](http://www.syngenta.com/ar2013)



## Performance data

## Corporate Responsibility information continued

## Responsible agriculture

	2013	2012	2011
<b>Resource efficiency programs (soil, water, biodiversity, IPM/ICM, safe use)</b>			
Total investment (\$m)	9.4	10.4	7.5
Europe, Africa and Middle East <sup>1</sup>	55%	37%	48%
North America	1%	4%	20%
Latin America	34%	35%	14%
Asia Pacific	10%	24%	18%
Active programs	253	157	150
<b>Medical stewardship<sup>2</sup></b>			
Countries with established Syngenta product toxicovigilance programs <sup>2</sup>	100	85	85
Crop Protection sales represented	93%	92%	89%
<b>Product safe use training</b>			
Active training programs	160	92	61
Human health <sup>3</sup>	97%	83%	
Environment <sup>3</sup>	2%	2%	
Value chain <sup>3</sup>	1%	15%	
People trained (m)	2.8	3.0	2.9

<sup>1</sup> Including headquarters (Switzerland)

<sup>2</sup> In 2013 and 2012, reporting year ended September 30. In 2011, reporting year ended December 31

<sup>3</sup> 2012 first year of reporting



Read more about "Responsible agriculture" on  
[www.syngenta.com/ar2013](http://www.syngenta.com/ar2013)

## Economic value shared

	2013	2012	2011
Economic value shared (\$m) <sup>1</sup>	14,864	13,257	12,784
Payments to suppliers <sup>2</sup>	9,792	8,550	8,140
Employee wages and benefits	2,828	2,710	2,661
Payments to governments (taxes) <sup>3</sup>	405	345	312
Payments to providers of capital <sup>4,5</sup>	1,139	971	1,078
Capital expenditure	679	662	575
Corporate community investment <sup>6,7</sup>	21	19	18

<sup>1</sup> In 2013 and 2012, reporting year ended September 30. In 2011, reporting year ended December 31

<sup>2</sup> Increase in Payments to suppliers reflects an increase in seeds production costs and higher inventory levels linked to projected sales growth

<sup>3</sup> Consists of income and other taxes paid, excluding VAT (included in Payments to suppliers) and employment-related taxes (included in Employee wages and benefits)

<sup>4</sup> Consists of expenditures for dividends, share repurchases (excluding those for employee share plans) and interest on debt

<sup>5</sup> Increase in Payments to providers of capital reflects an increased dividend payment in 2013

<sup>6</sup> In 2013, \$0.4 million for resource efficiency programs

<sup>7</sup> The PwC Independent Assurance Report includes in its scope only the Corporate community investment figure used in the calculation of Economic value shared



Read more about "Economic value shared" on  
[www.syngenta.com/ar2013](http://www.syngenta.com/ar2013)

## Business integrity

	2013	2012	2011
<b>Corporate conduct<sup>1</sup></b>			
Compliance cases reported through the compliance helpline <sup>2</sup>	110	58	82
<b>Animal testing compliance<sup>1</sup></b>			
Management system audits performed in contract laboratories	13	15	8
Management system non-compliances found	0	1	0
<b>Biotechnology and regulatory compliance<sup>1</sup></b>			
Employees completing trial regulatory compliance training	1,228	1,559	2,044
Trial locations requiring a permit	420	400	406
Trial inspections performed by Syngenta	272	278	155

<sup>1</sup> In 2013 and 2012, reporting year ended September 30. In 2011, reporting year ended December 31

<sup>2</sup> This does not include cases reported through line management, HR or legal processes



Read more about "Business integrity" on  
[www.syngenta.com/ar2013](http://www.syngenta.com/ar2013)

## Independent Assurance Report on the Syngenta Corporate Responsibility Reporting

To the Head of Legal and Taxes, Syngenta AG, Basel ("Syngenta")

We have been engaged to perform assurance procedures to provide assurance on the aspects of the 2013 Corporate Responsibility (CR) reporting of Syngenta included in the Annual Review 2013 ("Report").

### Scope and Subject matter

Our limited assurance engagement focused on the following data and information disclosed in the CR reporting of Syngenta and its consolidated subsidiaries, for the financial year ended December 31, 2013:

- The application of the Syngenta internal Health, Safety and Environment (HSE) and Corporate Community Investment (CCI) reporting guidelines to the CR, in all material aspects;
- the internal reporting system and procedures, including the control environment, to collect and aggregate CR data;
- the CR Performance Summary disclosed on pages 60 to 64 of the Report.

Our assurance procedures do not cover the indicators on capital expenditure, employee wages and benefits and payments to suppliers, governments and providers of capital presented in the CR Performance Summary on page 64 of the Report.

### Criteria

The reporting criteria used by Syngenta are described in the internal HSE and CCI reporting guidelines and define those procedures, by which the CR data are internally gathered, collated and aggregated.

The accuracy and completeness of CR performance indicators are subject to inherent limitations given their nature and methods for determining, calculating and estimating such data. Our assurance report should therefore be read in connection with Syngenta's internal guidelines, definitions and procedures on the reporting of its CR performance.

### Responsibility and Methodology

The Board of Directors of Syngenta AG is responsible for both the subject matter and the criteria as well as for the selection, preparation and presentation of the selected information in accordance with the criteria. Our responsibility is to form an independent opinion, based on our limited assurance procedures, on whether anything has come to our attention to indicate that the identified CR information selected contained in the Report 2013 is not stated, in all material respects, in accordance with the reporting criteria.

We planned and performed our procedures in accordance with the International Standard on Assurance Engagements (ISAE 3000) "Assurance engagements other than audits or reviews of historical financial information". This standard requires that we comply with ethical requirements and plan and perform the assurance engagement to obtain limited assurance on the identified HSE and CR information.

For the subject matter for which we provide limited assurance, the nature, timing and extent of procedures for gathering sufficient appropriate evidence are deliberately limited relative to a reasonable assurance engagement.

We have complied with the independence and other ethical requirements of the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior.

During 2013 we have not performed any tasks or services for Syngenta that would conflict with our independence, nor have we been

responsible for the preparation of any part of the report; and therefore qualify as independent as defined by Code of Ethics and applicable legal and regulatory requirements.

### Summary of work performed

Our assurance procedures included, amongst others, the following work:

#### Evaluation of the application of group guidelines

Reviewing the application of the Syngenta internal HSE and CCI reporting guidelines.

#### Site visits

Visiting four different sites in Europe and Kenya (Seeds, Active Ingredients and Lawn and Garden). The selection was based on quantitative and qualitative criteria.

Interviewing personnel responsible for internal reporting and data collection at the sites we visited and at the Group level.

#### Assessment of the performance indicators

Performing tests on a sample basis of evidence supporting the CR Performance Summary relative to completeness, accuracy, adequacy and consistency.

#### Review of the documentation

Reviewing the relevant documentation on a sample basis, including, management and reporting structures and documentation.

#### Assessment of the processes and data consolidation

Reviewing the appropriateness of the management and reporting processes for CR reporting. Assessing the consolidation process of data at the group level.

We have not carried out any work in respect of projections and targets nor such outside of the agreed scope and therefore restrict our conclusion to the 2013 Corporate Responsibility (CR) reporting of Syngenta.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our assurance conclusions.

### Limited assurance conclusion

With reference to the identified CR Reporting 2013, the following applies:

- Based on our work performed, nothing has come to our attention causing us to believe that the internal HSE and CCI guidelines are not being applied in all material aspects;
- Based on our work performed, nothing has come to our attention causing us to believe that the internal reporting systems to collect and aggregate CR data are not functioning as designed and provide an appropriate basis for its disclosure in all material aspects; and
- Based on our work described in this report, nothing has come to our attention that causes us to believe that the data and information mentioned in the subject matter and disclosed with the CR reporting in the Syngenta Annual Review 2013 on pages 60 to 64 does not give a fair picture of Syngenta's performance in the area of CR.



PricewaterhouseCoopers AG  
Zurich, February 17, 2014  
Gerd Tritschler  
Jonas Buol

## Performance data

## Shareholder information

Syngenta shares are listed on the SIX Swiss Exchange and on the New York Stock Exchange, where the shares are traded as ADS (American Depositary Shares).<sup>1</sup>

## Trading symbols

	SIX Swiss Exchange	New York Stock Exchange
Shares	SYNN	SYT

## Shares in issue

At December 31, 2013	Number of shares
Total shares in issue	93,126,149
of which treasury shares	1,375,688

Share price and market capitalization<sup>2</sup>

At December 31, 2013	
Share price (CHF)	355.20
Share price (\$) (ADS)	79.94
Market capitalization (CHF million)	32,590
Market capitalization (\$ million)	36,560

## Dividend history

	Dividend CHF
2009	6.00
2010	7.00
2011	8.00
2012	9.50
2013 <sup>3</sup>	10.00

1 1 share = 5 ADS

2 For the purposes of calculating market capitalization the number of shares stood at 91.8 million

3 To be submitted to shareholders for approval at the Annual General Meeting on April 29, 2014

## Syngenta share price performance January 1, 2013 – December 31, 2013

(Indexed to zero at closing price on December 31, 2012)



## Syngenta ADS price performance January 1, 2013 – December 31, 2013

(Indexed to zero at closing price on December 31, 2012)



## Reporting dates

First quarter trading statement	April 16, 2014
Annual General Meeting	April 29, 2014
Half-year results	July 23, 2014
Third quarter trading statement	October 16, 2014

A full form 20-F is accessible at: [www.syngenta.com/ir](http://www.syngenta.com/ir)

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The full-year results press release can be viewed up to six months after the event at:

[www.syngenta.com/fyr-2013](http://www.syngenta.com/fyr-2013)



### Syngenta share price performance January 1, 2009 – December 31, 2013

(Indexed to zero at closing price on December 31, 2008)



Over the last five years, Syngenta has outperformed the Swiss Market Index by 29 percent and the Eurotop 300 index by 19 percent.

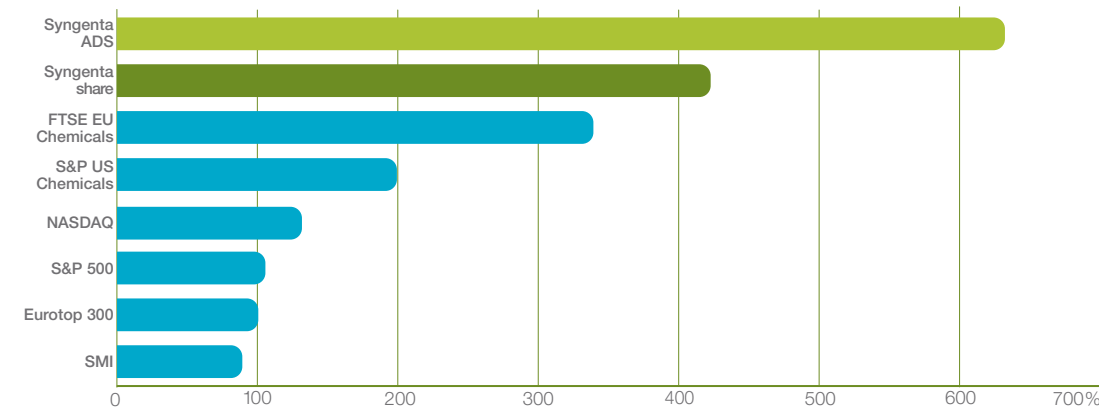
### Syngenta ADS price performance January 1, 2009 – December 31, 2013

(Indexed to zero at closing price on December 31, 2008)



The Syngenta ADS has performed in line with the S&P 500 index and has outperformed the Dow Jones index by 15 percent since 2009.

### Total shareholder return<sup>1</sup> January 1, 2004 – December 31, 2013



Over the last 10 years, total shareholder return is 422 percent from the Syngenta share and 633 percent from the ADS.

<sup>1</sup> Share price appreciation plus reinvested dividends, indexed to closing price on December 31, 2003

## Switzerland

Investor Relations  
T +41 61 323 5883  
F +41 61 323 5880  
E [global.investor\\_relations@syngenta.com](mailto:global.investor_relations@syngenta.com)

Media Relations  
T +41 61 323 2323  
F +41 61 323 2424  
E [media.relations@syngenta.com](mailto:media.relations@syngenta.com)

Share Register  
T +41 58 399 6133  
F +41 58 499 6193  
E [syngenta.aktienregister@sag.ch](mailto:syngenta.aktienregister@sag.ch)

Shareholder Services  
T +41 61 323 2121  
F +41 61 323 5461  
E [shareholder.services@syngenta.com](mailto:shareholder.services@syngenta.com)

Ordering of publications  
T +41 58 399 6133  
E [syngenta.aktienregister@sag.ch](mailto:syngenta.aktienregister@sag.ch)

Syngenta switchboard  
T +41 61 323 1111  
F +41 61 323 1212  
E [global.webmaster@syngenta.com](mailto:global.webmaster@syngenta.com)

## USA

Investor Relations  
T +1 202 737 6520  
T +1 202 737 6521  
E [global.investor\\_relations@syngenta.com](mailto:global.investor_relations@syngenta.com)

Media Relations  
T +1 202 737 8913  
F +1 202 347 8758  
E [media.relations\\_us@syngenta.com](mailto:media.relations_us@syngenta.com)

Contacts for ADS holders  
T +1 888 269 2377 – from within the USA  
T +1 201 680 6825 – from outside the USA  
E [shrrelations@bny Mellon.com](mailto:shrrelations@bny Mellon.com)

Syngenta AG  
Corporate Affairs  
Schwarzwaldallee 215  
P.O. Box  
CH-4002 Basel  
Switzerland

[www.syngenta.com](http://www.syngenta.com)

# Bringing plant potential to life

For the business year 2013, Syngenta has published three books: the Annual Review 2013 (incorporating our Corporate Responsibility performance), the Financial Report 2013, and the Corporate Governance Report and Compensation Report 2013.

All documents were originally published in English. The Annual Review 2013 and the Corporate Governance Report and Compensation Report 2013 are also available in German.

These publications are also available on the Internet: [www.syngenta.com](http://www.syngenta.com)

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